

SAF-RC-148
300 Area D4 Waste Sites –
Soil Full Protocol
FINAL DATA PACKAGE

COMPLETE COPY OF DATA PACKAGE TO:

No distribution required KW 7/5/16
 INITIAL/DATE

COMMENTS:

SDG JP1047

SAF-RC-148

Rad only

Chem only

Rad & Chem

Complete

Partial

Sample Location: 300-288:2 WSA1

Analytical Data Package Prepared For
Washington Closure Hanford

Radiochemical Analysis By
TestAmerica Inc

2800 G.W. Way, Richland Wa, 99354, (509)-375-3131.

Assigned Laboratory Code: TARL

Data Package Contains 65 Pages

Report No.: 68828

Results in this report relate only to the sample(s) analyzed.

SDG No.	Order No.	Client Sample ID (List Order)	Lot-Sa No.	Work Order	Report DB ID	Batch No.
JP1047	RC-148	J1V902	J6F200410-1	M8R1X1AC	9M8R1X10	6173019
		J1V902	J6F200410-1	M8R1X1AA	9M8R1X10	6173020
		J1V903	J6F200410-2	M8R101AC	9M8R1010	6173019
		J1V903	J6F200410-2	M8R101AA	9M8R1010	6173020
		J1V904	J6F200410-3	M8R111AC	9M8R1110	6173019
		J1V904	J6F200410-3	M8R111AA	9M8R1110	6173020
		J1V905	J6F200410-4	M8R121AC	9M8R1210	6173019
		J1V905	J6F200410-4	M8R121AA	9M8R1210	6173020
		J1V906	J6F200410-5	M8R131AC	9M8R1310	6173019
		J1V906	J6F200410-5	M8R131AA	9M8R1310	6173020
		J1V907	J6F200410-6	M8R141AC	9M8R1410	6173019
		J1V907	J6F200410-6	M8R141AA	9M8R1410	6173020
		J1V908	J6F200410-7	M8R151AC	9M8R1510	6173019
		J1V908	J6F200410-7	M8R151AA	9M8R1510	6173020
		J1V909	J6F200410-8	M8R161AC	9M8R1610	6173019
		J1V909	J6F200410-8	M8R161AA	9M8R1610	6173020
		J1V910	J6F200410-9	M8R171AC	9M8R1710	6173019
		J1V910	J6F200410-9	M8R171AA	9M8R1710	6173020
		J1V911	J6F200410-10	M8R181AC	9M8R1810	6173019
		J1V911	J6F200410-10	M8R181AA	9M8R1810	6173020
RC-148		J1V912	J6F200410-11	M8R191AC	9M8R1910	6173019
		J1V912	J6F200410-11	M8R191AA	9M8R1910	6173020
		J1V913	J6F200410-12	M8R2A1AC	9M8R2A10	6173019
		J1V913	J6F200410-12	M8R2A1AA	9M8R2A10	6173020
		J1V914	J6F200410-13	M8R2C1AC	9M8R2C10	6173019
		J1V914	J6F200410-13	M8R2C1AA	9M8R2C10	6173020



THE LEADER IN ENVIRONMENTAL TESTING

Certificate of Analysis

Washington Hanford Closure
2620 Fermi Avenue
Richland, WA 99354

June 24, 2016

Attention: Joan Kessner

SAF Number	:	RC-148
Date SDG Closed	:	June 20, 2016
Number of Samples	:	Thirteen (13)
Sample Type	:	Soil
SDG Number	:	JP1047
Data Deliverable	:	7-Day / Summary

CASE NARRATIVE

I. Introduction

On June 20, 2016, thirteen soil samples were received at TestAmerica for radiochemical analysis. Upon receipt, the samples were assigned the following laboratory ID number to correspond with the Washington Closure Hanford (WCH) specific ID:

<u>WCH ID#</u>	<u>TARL ID#</u>	<u>MATRIX</u>	<u>DATE OF RECEIPT</u>
J1V902	M8R1X	SOIL	6/20/16
J1V903	M8R10	SOIL	6/20/16
J1V904	M8R11	SOIL	6/20/16
J1V905	M8R12	SOIL	6/20/16
J1V906	M8R13	SOIL	6/20/16
J1V907	M8R14	SOIL	6/20/16
J1V908	M8R15	SOIL	6/20/16
J1V909	M8R16	SOIL	6/20/16
J1V910	M8R17	SOIL	6/20/16
J1V911	M8R18	SOIL	6/20/16
J1V912	M8R19	SOIL	6/20/16
J1V913	M8R2A	SOIL	6/20/16
J1V914	M8R2C	SOIL	6/20/16

II. Sample Receipt

Washington Closure Hanford
June 24, 2016

The samples were received in good condition and no anomalies were noted during check-in.

III. Analytical Results/Methodology

The analytical results for this report are presented by laboratory sample ID. Each set of data includes sample identification information, analytical results and the appropriate associated statistical errors.

The requested analyses were:

Alpha Spectroscopy
Uranium 234, 235 and 238 by method RL-ALP-015
Gamma Spectroscopy
Gamma Spec by method RL-GAM-001

IV. Quality Control

The analytical results for each analysis performed includes a minimum of one laboratory control sample (LCS), one method (reagent) blank, and one duplicate sample analysis. Any exceptions have been noted in the "Comments" section.

QC and sample results are reported in the same units.

V. Comments

Alpha Spectroscopy

Uranium 234, 235 and 238 by method RL-ALP-015:

The LCS, batch blank, samples and sample duplicate (J1V903) results are within contractual requirements.

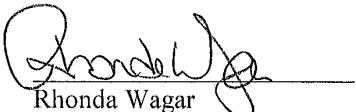
Gamma Spectroscopy

Gamma Spec by method RL-GAM-001:

The CRDL was not met for some of the analytes. Except as noted, the LCS, batch blank, samples and sample duplicate (J1V902) results are within contractual requirements.

I certify that this Certificate of Analysis is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager, or a designee as verified by the following signature.

Reviewed and approved:



Rhonda Wagar
Project Manager

Drinking Water Method Cross References

DRINKING WATER ASTM METHOD CROSS REFERENCES		
Referenced Method	Isotope(s)	TestAmerica Richland's SOP No.
EPA 901.1	Cs-134, I-131	RL-GAM-001
EPA 900.0	Alpha & Beta	RL-GPC-001
EPA 00-02	Gross Alpha (Coprecipitation)	RL-GPC-002
EPA 903.0	Total Alpha Radium (Ra-226)	RL-RA-002
EPA 903.1	Ra-226	RL-RA-001
EPA 904.0	Ra-228	RL-RA-001
EPA 905.0	Sr-89/90	RL-GPC-003
ASTM D5174	Uranium	RL-KPA-003
EPA 906.0	Tritium	RL-LSC-005

Results in this report relate only to the sample(s) analyzed.

Uncertainty Estimation

TestAmerica Richland has adopted the internationally accepted approach to estimating uncertainties described in "NIST Technical Note 1297, 1994 Edition". The approach, "Law of Propagation of Errors", involves the identification of all variables in an analytical method which are used to derive a result. These variables are related to the analytical result (R) by some functional relationship, $R = \text{constants} * f(x,y,z,...)$. The components (x,y,z) are evaluated to determine their contribution to the overall method uncertainty. The individual component uncertainties (u_i) are then combined using a statistical model that provides the most probable overall uncertainty value. All component uncertainties are categorized as type A, evaluated by statistical methods, or type B, evaluated by other means. Uncertainties not included in the components, such as sample homogeneity, are combined with the component uncertainty as the square root of the sum-of-the-squares of the individual uncertainties. The uncertainty associated with the derived result is the combined uncertainty (u_c) multiplied by the coverage factor (1,2, or 3).

When three or more sample replicates are used to derive the analytical result, the type A uncertainty is the standard deviation of the mean value (S/\sqrt{n}), where S is the standard deviation of the derived results. The type B uncertainties are all other random or non-random components that are not included in the standard deviation.

The derivation of the general "Law of Propagation of Errors" equations and specific example are available on request.

Report Definitions

Action Lev	An agreed upon activity level used to trigger some action when the final result is greater than or equal to the Action Level. Often the Action Level is related to the Decision Limit.
Batch	The QC preparation batch number that relates laboratory samples to QC samples that were prepared and analyzed together.
Bias	Defined by the equation (Result/Expected)-1 as defined by ANSI N13.30.
COC No	Chain of Custody Number assigned by the Client or TestAmerica.
Count Error (#s)	Poisson counting statistics of the gross sample count and background. The uncertainty is absolute and in the same units as the result. For Liquid Scintillation Counting (LSC) the batch blank count is the background.
CSU (#s) u_c Combined Standard Uncert.	All known uncertainties associated with the preparation and analysis of the sample are propagated to give a measure of the uncertainty associated with the result, u_c the <i>combined standard uncertainty</i> . The uncertainty is absolute and in the same units as the result.
(#s), Coverage Factor	The coverage factor defines the width of the confidence interval, 1, 2 or 3 standard deviations.
CRDL (RL)	Contractual Required Detection Limit as defined in the Client's Statement Of Work or TestAmerica "default" nominal detection limit. Often referred to the reporting level (RL)
Lc	Decision Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume associated with the sample. The Type I error probability is approximately 5%. $Lc = (1.645 * \text{Sqrt}(2 * (\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin})) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Afn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability. Lc cannot be calculated when the background count is zero.
Lot-Sample No	The number assigned by the LIMS software to track samples received on the same day for a given client. The sample number is a sequential number assigned to each sample in the Lot.
MDC MDA	Detection Level based on instrument background or blank, adjusted by the Efficiency, Chemical Yield, and Volume with a Type I and II error probability of approximately 5%. $MDC = (4.65 * \text{Sqrt}((\text{BkgndCnt} / \text{BkgndCntMin}) / \text{SCntMin}) + 2.71 / \text{SCntMin}) * (\text{ConvFct} / (\text{Eff} * \text{Yld} * \text{Afn} * \text{Vol}) * \text{IngrFct})$. For LSC methods the batch blank is used as a measure of the background variability.
Primary Detector	The instrument identifier associated with the analysis of the sample aliquot.
Ratio U-234/U-238	The U-234 result divided by the U-238 result. The U-234/U-238 ratio for natural uranium in NIST SRM 4321C is 1.038.
Rst/MDC	Ratio of the Result to the MDC. A value greater than 1 may indicate activity above background at a high level of confidence. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Rst/TotUcert	Ratio of the Result to the Total Uncertainty. If the uncertainty has a coverage factor of 2 a value greater than 1 may indicate activity above background at approximately the 95% level of confidence assuming a two-sided confidence interval. Caution should be used when applying this factor and it should be used in concert with the qualifiers associated with the result.
Report DB No	Sample Identifier used by the report system. The number is based upon the first five digits of the Work Order Number .
RER	The equation Replicate Error Ratio = $(S-D)/[\sqrt{(TPUs^2 + TPUsd^2)}]$ as defined by ICPT BOA where S is the original sample result, D is the result of the duplicate, TPUs is the total uncertainty of the original sample and TPUsd is the total uncertainty of the duplicate sample.
SDG	Sample Delivery Group Number assigned by the Client or assigned by TestAmerica upon sample receipt.
Sum Rpt Alpha Spec Rst(s)	The sum of the reported alpha spec results for tests derived from the same sample excluding duplicate result where the results are in the same units.
Work Order	The LIMS software assign test specific identifier.
Yield	The recovery of the tracer added to the sample such as Pu-242 used to trace a Pu-239/40 method.

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD		
6173020 UISO_IE_PLATE_AEA												
J1V902												
M8R1X1AA	U-234		2.83E-01	+- 1.3E-01		pCi/g	95%	5.42E-02	1.00E+00			
	U-235		-2.49E-03	+- 2.5E-02	U	pCi/g	95%	5.24E-02	1.00E+00			
	U-238		4.86E-01	+- 1.8E-01		pCi/g	95%	1.06E-01	1.00E+00			
J1V903												
M8R101AA	U-234		2.44E-01	+- 1.3E-01		pCi/g	81%	1.01E-01	1.00E+00			
	U-235		2.60E-02	+- 4.0E-02	U	pCi/g	81%	5.73E-02	1.00E+00			
	U-238		2.40E-01	+- 1.3E-01		pCi/g	81%	1.06E-01	1.00E+00			
J1V903 DUP												
M8R101AD	U-234		1.53E-01	+- 1.0E-01		pCi/g	77%	8.86E-02	1.00E+00	45.9		
	U-235		2.66E-02	+- 4.3E-02	U	pCi/g	77%	6.59E-02	1.00E+00	2.3		
	U-238		1.52E-01	+- 1.0E-01		pCi/g	77%	8.97E-02	1.00E+00	44.5		
J1V904												
M8R111AA	U-234		2.45E-01	+- 1.2E-01		pCi/g	78%	6.36E-02	1.00E+00			
	U-235		3.85E-02	+- 4.6E-02	U	pCi/g	78%	4.82E-02	1.00E+00			
	U-238		3.33E-01	+- 1.5E-01		pCi/g	78%	7.32E-02	1.00E+00			
J1V905												
M8R121AA	U-234		1.44E-01	+- 1.1E-01		pCi/g	68%	1.02E-01	1.00E+00			
	U-235		-1.04E-02	+- 3.3E-02	U	pCi/g	68%	8.78E-02	1.00E+00			
	U-238		1.90E-01	+- 1.6E-01	U	pCi/g	68%	2.28E-01	1.00E+00			
J1V906												
M8R131AA	U-234		2.74E-01	+- 1.5E-01		pCi/g	66%	1.26E-01	1.00E+00			
	U-235		1.69E-02	+- 5.3E-02	U	pCi/g	66%	1.10E-01	1.00E+00			
	U-238		3.85E-01	+- 2.4E-01		pCi/g	66%	3.15E-01	1.00E+00			
J1V907												
M8R141AA	U-234		4.31E-01	+- 1.6E-01		pCi/g	90%	5.13E-02	1.00E+00			
	U-235		1.05E-02	+- 2.3E-02	U	pCi/g	90%	4.18E-02	1.00E+00			
	U-238		2.35E-01	+- 1.1E-01		pCi/g	90%	5.76E-02	1.00E+00			
J1V908												
M8R151AA	U-234		1.64E-01	+- 1.1E-01		pCi/g	71%	6.72E-02	1.00E+00			
	U-235		-2.20E-03	+- 3.7E-02	U	pCi/g	71%	7.11E-02	1.00E+00			
	U-238		1.98E-01	+- 1.3E-01		pCi/g	71%	7.73E-02	1.00E+00			
J1V909												
M8R161AA	U-234		2.95E-01	+- 1.3E-01		pCi/g	93%	6.05E-02	1.00E+00			
	U-235		9.00E-03	+- 2.5E-02	U	pCi/g	93%	5.61E-02	1.00E+00			
	U-238		2.24E-01	+- 1.2E-01		pCi/g	93%	1.08E-01	1.00E+00			
J1V910												
M8R171AA	U-234		2.40E-01	+- 1.1E-01		pCi/g	87%	5.67E-02	1.00E+00			

TestAmerica Inc RPD - Relative Percent Difference.
 rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
 mary2 V5.5.1 software.
 A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD		
6173020 UISO_IE_PLATE_AEA												
J1V910												
M8R171AA	U-235		9.13E-03	+- 2.0E-02	U	pCi/g	87%	3.63E-02	1.00E+00			
	U-238		2.32E-01	+- 1.1E-01		pCi/g	87%	7.01E-02	1.00E+00			
J1V911												
M8R181AA	U-234		2.51E-01	+- 1.2E-01		pCi/g	90%	7.04E-02	1.00E+00			
	U-235		1.85E-02	+- 3.1E-02	U	pCi/g	90%	5.08E-02	1.00E+00			
	U-238		1.09E-01	+- 7.6E-02		pCi/g	90%	6.83E-02	1.00E+00			
J1V912												
M8R191AA	U-234		2.40E-01	+- 1.2E-01		pCi/g	85%	5.92E-02	1.00E+00			
	U-235		2.30E-02	+- 3.5E-02	U	pCi/g	85%	4.74E-02	1.00E+00			
	U-238		1.88E-01	+- 1.0E-01		pCi/g	85%	6.61E-02	1.00E+00			
J1V913												
M8R2A1AA	U-234		1.94E-01	+- 1.1E-01		pCi/g	88%	8.78E-02	1.00E+00			
	U-235		1.70E-02	+- 3.8E-02	U	pCi/g	88%	7.37E-02	1.00E+00			
	U-238		2.24E-01	+- 1.5E-01		pCi/g	88%	1.97E-01	1.00E+00			
J1V914												
M8R2C1AA	U-234		1.71E-01	+- 1.0E-01		pCi/g	90%	9.75E-02	1.00E+00			
	U-235		5.48E-03	+- 3.6E-02	U	pCi/g	90%	8.61E-02	1.00E+00			
	U-238		2.21E-01	+- 1.7E-01	U	pCi/g	90%	2.40E-01	1.00E+00			
6173019 GAMMA_GS												
J1V902												
M8R1X1AC	AMERICIUM 241		-1.27E-02	+- 1.8E-02	U	pCi/g		2.92E-02				
	CE-144		1.26E-02	+- 5.3E-02	U	pCi/g		8.90E-02				
	CO-60		-8.16E-03	+- 1.6E-02	U	pCi/g		2.63E-02	5.00E-02			
	CS-134		2.64E-02	+- 1.7E-02	U	pCi/g		3.14E-02				
	CS-137		8.68E-04	+- 1.4E-02	U	pCi/g		2.37E-02	1.00E-01			
	EU-152		3.31E-03	+- 3.0E-02	U	pCi/g		5.07E-02	1.00E-01			
	EU-154		3.08E-03	+- 5.1E-02	U	pCi/g		8.99E-02	1.00E-01			
	EU-155		3.71E-02	+- 2.6E-02	U	pCi/g		4.48E-02	1.00E-01			
	K-40		1.38E+01	+- 1.7E+00		pCi/g		2.63E-01				
	RA-226		4.75E-01	+- 7.8E-02		pCi/g		4.25E-02				
	RA-228		8.32E-01	+- 1.5E-01		pCi/g		9.30E-02				
	RU-106		-5.71E-02	+- 1.1E-01	U	pCi/g		1.78E-01				
	SB-125		2.50E-03	+- 2.9E-02	U	pCi/g		4.99E-02				
	U-235		4.65E-02	+- 5.6E-02	U	pCi/g		9.37E-02	1.00E+00			
	U-238		7.70E-01	+- 2.7E-01		pCi/g		2.93E-01				
	ZN-65		5.45E-03	+- 3.8E-02	U	pCi/g		5.59E-02				
J1V902 DUP												

TestAmerica Inc RPD - Relative Percent Difference.
rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
mary2 V5.5.1 software.
A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Batch	Client Id Work Order	Parameter	Result +/- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6173019 GAMMA_GS									
J1V902 DUP									
M8R1X1AD	AMERICIUM 241		2.06E-03 +/- 1.8E-02	U	pCi/g		3.07E-02		-277.7
	CE-144		-1.99E-02 +/- 5.3E-02	U	pCi/g		8.98E-02		-882.1
	CO-60		-1.16E-02 +/- 1.3E-02	U	pCi/g		2.16E-02	5.00E-02	-34.7
	CS-134		6.22E-02 +/- 2.6E-02	U	pCi/g		3.09E-02		80.8
	CS-137		4.35E-03 +/- 1.3E-02	U	pCi/g		2.29E-02	1.00E-01	133.5
	EU-152		-8.52E-03 +/- 2.8E-02	U	pCi/g		4.61E-02	1.00E-01	-454.0
	EU-154		-1.62E-02 +/- 4.9E-02	U	pCi/g		8.40E-02	1.00E-01	-294.1
	EU-155		2.26E-02 +/- 2.7E-02	U	pCi/g		4.64E-02	1.00E-01	48.6
	K-40		1.47E+01 +/- 1.7E+00		pCi/g		2.04E-01		6.5
	RA-226		5.59E-01 +/- 9.2E-02		pCi/g		4.12E-02		16.1
	RA-228		7.58E-01 +/- 1.6E-01		pCi/g		8.85E-02		9.3
	RU-106		3.04E-02 +/- 1.0E-01	U	pCi/g		1.81E-01		-656.0
	SB-125		6.70E-03 +/- 2.7E-02	U	pCi/g		4.74E-02		91.4
	U-235		2.12E-02 +/- 5.7E-02	U	pCi/g		9.80E-02	1.00E+00	74.8
	U-238		6.16E-01 +/- 2.7E-01		pCi/g		3.02E-01		22.2
	ZN-65		7.69E-03 +/- 3.7E-02	U	pCi/g		5.72E-02		34.1
J1V903									
M8R101AC	AMERICIUM 241		1.02E-02 +/- 1.1E-01	U	pCi/g		1.98E-01		
	CE-144		-2.89E-02 +/- 7.9E-02	U	pCi/g		1.35E-01		
	CO-60		2.39E-03 +/- 1.8E-02	U	pCi/g		3.14E-02	5.00E-02	
	CS-134		4.67E-02 +/- 1.9E-02	U	pCi/g		3.61E-02		
	CS-137		1.00E-02 +/- 1.6E-02	U	pCi/g		2.82E-02	1.00E-01	
	EU-152		-4.07E-02 +/- 4.0E-02	U	pCi/g		6.30E-02	1.00E-01	
	EU-154		-3.65E-02 +/- 5.4E-02	U	pCi/g		8.97E-02	1.00E-01	
	EU-155		5.91E-02 +/- 4.6E-02	U	pCi/g		7.99E-02	1.00E-01	
	K-40		1.45E+01 +/- 1.8E+00		pCi/g		2.77E-01		
	RA-226		5.54E-01 +/- 8.7E-02		pCi/g		4.70E-02		
	RA-228		7.85E-01 +/- 1.6E-01		pCi/g		9.75E-02		
	RU-106		-1.17E-02 +/- 1.2E-01	U	pCi/g		2.10E-01		
	SB-125		4.79E-04 +/- 3.6E-02	U	pCi/g		6.20E-02		
	U-235		4.83E-02 +/- 8.0E-02	U	pCi/g		1.41E-01	1.00E+00	
	U-238		5.13E-01 +/- 8.2E-01	U	pCi/g		1.46E+00		
	ZN-65		-3.87E-02 +/- 4.5E-02	U	pCi/g		5.78E-02		
J1V904									
M8R111AC	AMERICIUM 241		-5.94E-04 +/- 1.7E-02	U	pCi/g		2.91E-02		
	CE-144		7.97E-03 +/- 4.9E-02	U	pCi/g		8.48E-02		

TestAmerica Inc RPD - Relative Percent Difference.
rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
mary2 V5.5.1 software.
A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6173019 GAMMA_GS									
J1V904									
M8R111AC	CO-60		2.04E-03 +- 1.3E-02	U	pCi/g		2.43E-02	5.00E-02	
	CS-134		2.23E-02 +- 1.5E-02	U	pCi/g		2.86E-02		
	CS-137		-7.96E-03 +- 1.3E-02	U	pCi/g		2.09E-02	1.00E-01	
	EU-152		-2.54E-03 +- 2.7E-02	U	pCi/g		4.57E-02	1.00E-01	
	EU-154		-4.24E-03 +- 4.2E-02	U	pCi/g		7.46E-02	1.00E-01	
	EU-155		3.28E-02 +- 2.6E-02	U	pCi/g		4.31E-02	1.00E-01	
	K-40		1.45E+01 +- 1.7E+00		pCi/g		1.67E-01		
	RA-226		4.85E-01 +- 7.8E-02		pCi/g		3.48E-02		
	RA-228		8.54E-01 +- 1.4E-01		pCi/g		8.10E-02		
	RU-106		-5.10E-02 +- 9.6E-02	U	pCi/g		1.60E-01		
	SB-125		-3.64E-02 +- 2.5E-02	U	pCi/g		3.97E-02		
	U-235		5.62E-02 +- 5.3E-02	U	pCi/g		9.29E-02	1.00E+00	
	U-238		3.60E-01 +- 2.7E-01		pCi/g		2.81E-01		
	ZN-65		6.01E-03 +- 3.1E-02	U	pCi/g		4.71E-02		
J1V905									
M8R121AC	AMERICIUM 241		2.72E-02 +- 6.8E-02	U	pCi/g		1.19E-01		
	CE-144		-5.50E-02 +- 1.1E-01	U	pCi/g		1.75E-01		
	CO-60		3.93E-03 +- 2.6E-02	U	pCi/g		4.58E-02	5.00E-02	
	CS-134		2.65E-02 +- 2.8E-02	U	pCi/g		4.92E-02		
	CS-137		-1.64E-02 +- 2.4E-02	U	pCi/g		3.94E-02	1.00E-01	
	EU-152		-2.84E-02 +- 5.4E-02	U	pCi/g		9.19E-02	1.00E-01	
	EU-154		4.22E-02 +- 7.6E-02	U	pCi/g		1.39E-01	1.00E-01	
	EU-155		3.34E-02 +- 5.6E-02	U	pCi/g		9.50E-02	1.00E-01	
	K-40		1.37E+01 +- 1.9E+00		pCi/g		3.50E-01		
	RA-226		5.72E-01 +- 1.1E-01		pCi/g		7.20E-02		
	RA-228		7.93E-01 +- 2.2E-01		pCi/g		1.51E-01		
	RU-106		-1.33E-01 +- 1.8E-01	U	pCi/g		3.01E-01		
	SB-125		-4.67E-02 +- 5.2E-02	U	pCi/g		8.39E-02		
	U-235		-4.49E-02 +- 1.1E-01	U	pCi/g		1.84E-01	1.00E+00	
	U-238		4.36E-01 +- 6.5E-01	U	pCi/g		1.11E+00		
	ZN-65		-1.76E-02 +- 6.2E-02	U	pCi/g		8.89E-02		
J1V906									
M8R131AC	AMERICIUM 241		-1.31E-01 +- 9.0E-02	U	pCi/g		1.43E-01		
	CE-144		-1.92E-02 +- 1.2E-01	U	pCi/g		1.99E-01		
	CO-60		-1.51E-02 +- 1.6E-02	U	pCi/g		2.65E-02	5.00E-02	
	CS-134		3.95E-02 +- 1.9E-02	U	pCi/g		3.57E-02		

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mary2 V5.5.1 software.
A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)		Qual	Units	Tracer Yield	MDL	CRDL	RPD		
6173019 GAMMA_GS												
J1V906												
M8R131AC	CS-137		1.30E-02	+- 1.7E-02	U	pCi/g		3.02E-02	1.00E-01			
	EU-152		-1.11E-01	+- 1.3E-01	U	pCi/g		8.58E-02	1.00E-01			
	EU-154		-2.27E-02	+- 5.6E-02	U	pCi/g		9.38E-02	1.00E-01			
	EU-155		-5.76E-02	+- 6.3E-02	U	pCi/g		1.02E-01	1.00E-01			
	K-40		1.42E+01	+- 1.8E+00		pCi/g		2.37E-01				
	RA-226		4.82E-01	+- 8.1E-02		pCi/g		5.64E-02				
	RA-228		8.23E-01	+- 1.6E-01		pCi/g		1.10E-01				
	RU-106		-4.16E-02	+- 1.5E-01	U	pCi/g		2.52E-01				
	SB-125		-8.89E-03	+- 4.4E-02	U	pCi/g		7.28E-02				
	U-235		5.95E-02	+- 1.2E-01	U	pCi/g		1.98E-01	1.00E+00			
	U-238		1.28E+00	+- 7.7E-01	U	pCi/g		1.30E+00				
	ZN-65		1.19E-02	+- 4.9E-02	U	pCi/g		7.18E-02				
J1V907												
M8R141AC	AMERICIUM 241		-4.45E-03	+- 2.2E-02	U	pCi/g		3.66E-02				
	CE-144		-5.95E-02	+- 6.5E-02	U	pCi/g		1.03E-01				
	CO-60		-1.54E-02	+- 1.7E-02	U	pCi/g		2.69E-02	5.00E-02			
	CS-134		4.37E-02	+- 2.0E-02	U	pCi/g		3.77E-02				
	CS-137		7.66E-03	+- 1.6E-02	U	pCi/g		2.81E-02	1.00E-01			
	EU-152		1.24E-02	+- 3.4E-02	U	pCi/g		6.00E-02	1.00E-01			
	EU-154		1.35E-02	+- 4.9E-02	U	pCi/g		8.80E-02	1.00E-01			
	EU-155		3.94E-02	+- 3.3E-02	U	pCi/g		5.58E-02	1.00E-01			
	K-40		1.44E+01	+- 1.7E+00		pCi/g		2.72E-01				
	RA-226		5.53E-01	+- 1.0E-01		pCi/g		4.62E-02				
	RA-228		7.69E-01	+- 1.7E-01		pCi/g		1.03E-01				
	RU-106		-9.65E-02	+- 1.3E-01	U	pCi/g		2.04E-01				
	SB-125		1.77E-02	+- 3.3E-02	U	pCi/g		5.82E-02				
	U-235		4.18E-03	+- 6.4E-02	U	pCi/g		1.10E-01	1.00E+00			
	U-238		5.88E-01	+- 3.3E-01		pCi/g		3.61E-01				
	ZN-65		5.07E-03	+- 3.9E-02	U	pCi/g		5.87E-02				
J1V908												
M8R151AC	AMERICIUM 241		2.32E-02	+- 1.9E-02	U	pCi/g		3.22E-02				
	CE-144		-1.07E-02	+- 5.3E-02	U	pCi/g		8.83E-02				
	CO-60		3.80E-03	+- 1.6E-02	U	pCi/g		2.91E-02	5.00E-02			
	CS-134		2.77E-02	+- 1.7E-02	U	pCi/g		3.11E-02				
	CS-137		-8.96E-03	+- 1.5E-02	U	pCi/g		2.40E-02	1.00E-01			
	EU-152		-4.53E-02	+- 3.0E-02	U	pCi/g		4.59E-02	1.00E-01			

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rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
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A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6173019 GAMMA_GS									
J1V908									
M8R151AC	EU-154		-1.92E-03 +- 5.1E-02	U	pCi/g		8.87E-02	1.00E-01	
	EU-155		3.42E-02 +- 2.6E-02	U	pCi/g		4.51E-02	1.00E-01	
	K-40		1.36E+01 +- 1.7E+00		pCi/g		2.86E-01		
	RA-226		5.19E-01 +- 8.4E-02		pCi/g		4.20E-02		
	RA-228		7.75E-01 +- 1.4E-01		pCi/g		9.64E-02		
	RU-106		-2.66E-02 +- 1.0E-01	U	pCi/g		1.79E-01		
	SB-125		1.03E-02 +- 2.9E-02	U	pCi/g		5.04E-02		
	U-235		-1.92E-02 +- 5.9E-02	U	pCi/g		9.54E-02	1.00E+00	
	U-238		5.44E-01 +- 2.7E-01		pCi/g		2.92E-01		
	ZN-65		-4.41E-02 +- 4.7E-02	U	pCi/g		6.04E-02		
J1V909									
M8R161AC	AMERICIUM 241		-7.66E-03 +- 2.0E-02	U	pCi/g		3.36E-02		
	CE-144		2.42E-02 +- 6.4E-02	U	pCi/g		9.69E-02		
	CO-60		-4.25E-03 +- 1.5E-02	U	pCi/g		2.65E-02	5.00E-02	
	CS-134		2.93E-02 +- 1.7E-02	U	pCi/g		3.23E-02		
	CS-137		9.80E-04 +- 1.5E-02	U	pCi/g		2.52E-02	1.00E-01	
	EU-152		3.43E-02 +- 3.3E-02	U	pCi/g		5.76E-02	1.00E-01	
	EU-154		-2.53E-02 +- 4.9E-02	U	pCi/g		8.22E-02	1.00E-01	
	EU-155		2.75E-02 +- 2.8E-02	U	pCi/g		4.94E-02	1.00E-01	
	K-40		1.59E+01 +- 1.9E+00		pCi/g		2.47E-01		
	RA-226		5.68E-01 +- 9.3E-02		pCi/g		4.26E-02		
	RA-228		8.59E-01 +- 1.6E-01		pCi/g		8.46E-02		
	RU-106		-4.45E-03 +- 1.1E-01	U	pCi/g		1.98E-01		
	SB-125		2.64E-03 +- 2.9E-02	U	pCi/g		5.05E-02		
	U-235		7.58E-02 +- 6.0E-02	U	pCi/g		1.05E-01	1.00E+00	
	U-238		7.07E-01 +- 3.3E-01		pCi/g		3.24E-01		
	ZN-65		-7.51E-03 +- 4.0E-02	U	pCi/g		5.84E-02		
J1V910									
M8R171AC	AMERICIUM 241		9.58E-03 +- 1.0E-01	U	pCi/g		1.83E-01		
	CE-144		7.30E-02 +- 7.4E-02	U	pCi/g		1.32E-01		
	CO-60		-1.26E-02 +- 1.6E-02	U	pCi/g		2.56E-02	5.00E-02	
	CS-134		2.49E-02 +- 2.3E-02	U	pCi/g		3.38E-02		
	CS-137		-1.28E-03 +- 1.5E-02	U	pCi/g		2.49E-02	1.00E-01	
	EU-152		-5.31E-03 +- 3.8E-02	U	pCi/g		6.29E-02	1.00E-01	
	EU-154		-6.16E-03 +- 5.4E-02	U	pCi/g		9.28E-02	1.00E-01	
	EU-155		4.97E-02 +- 4.4E-02	U	pCi/g		7.61E-02	1.00E-01	

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 rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
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 A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6173019 GAMMA_GS									
J1V910									
M8R171AC	K-40		1.49E+01 +- 1.8E+00		pCi/g		1.94E-01		
	RA-226		5.44E-01 +- 9.2E-02		pCi/g		4.42E-02		
	RA-228		9.91E-01 +- 1.7E-01		pCi/g		9.58E-02		
	RU-106		2.48E-02 +- 1.1E-01	U	pCi/g		2.00E-01		
	SB-125		4.18E-04 +- 3.3E-02	U	pCi/g		5.76E-02		
	U-235		1.38E-02 +- 7.8E-02	U	pCi/g		1.35E-01	1.00E+00	
	U-238		5.79E-01 +- 8.4E-01	U	pCi/g		1.49E+00		
	ZN-65		1.39E-03 +- 4.1E-02	U	pCi/g		5.93E-02		
J1V911									
M8R181AC	AMERICIUM 241		-1.08E-02 +- 2.0E-02	U	pCi/g		3.35E-02		
	CE-144		-3.92E-02 +- 5.7E-02	U	pCi/g		9.50E-02		
	CO-60		1.03E-03 +- 1.6E-02	U	pCi/g		2.93E-02	5.00E-02	
	CS-134		3.81E-02 +- 1.9E-02	U	pCi/g		3.55E-02		
	CS-137		7.52E-03 +- 1.5E-02	U	pCi/g		2.59E-02	1.00E-01	
	EU-152		1.06E-02 +- 3.1E-02	U	pCi/g		5.30E-02	1.00E-01	
	EU-154		1.81E-02 +- 5.0E-02	U	pCi/g		8.97E-02	1.00E-01	
	EU-155		4.46E-02 +- 2.9E-02	U	pCi/g		5.16E-02	1.00E-01	
	K-40		1.55E+01 +- 1.8E+00		pCi/g		2.48E-01		
	RA-226		5.88E-01 +- 9.6E-02		pCi/g		4.47E-02		
	RA-228		8.52E-01 +- 1.7E-01		pCi/g		1.05E-01		
	RU-106		-4.60E-03 +- 1.1E-01	U	pCi/g		1.87E-01		
	SB-125		1.87E-02 +- 3.2E-02	U	pCi/g		5.74E-02		
	U-235		5.58E-02 +- 5.9E-02	U	pCi/g		1.03E-01	1.00E+00	
	U-238		7.11E-01 +- 2.8E-01		pCi/g		3.22E-01		
	ZN-65		5.02E-03 +- 3.8E-02	U	pCi/g		5.68E-02		
J1V912									
M8R191AC	AMERICIUM 241		-9.22E-02 +- 7.0E-02	U	pCi/g		1.10E-01		
	CE-144		8.12E-03 +- 1.1E-01	U	pCi/g		1.79E-01		
	CO-60		-3.59E-03 +- 2.4E-02	U	pCi/g		4.14E-02	5.00E-02	
	CS-134		1.86E-02 +- 2.6E-02	U	pCi/g		4.52E-02		
	CS-137		-7.22E-03 +- 2.2E-02	U	pCi/g		3.82E-02	1.00E-01	
	EU-152		2.96E-02 +- 6.2E-02	U	pCi/g		1.00E-01	1.00E-01	
	EU-154		-3.70E-02 +- 7.7E-02	U	pCi/g		1.31E-01	1.00E-01	
	EU-155		4.00E-02 +- 5.4E-02	U	pCi/g		9.28E-02	1.00E-01	
	K-40		1.41E+01 +- 1.9E+00		pCi/g		2.66E-01		
	RA-226		6.82E-01 +- 1.3E-01		pCi/g		6.59E-02		

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 mary2 V5.5.1 software.
 A2002

Sample Results Summary

Date: 24-Jun-16

TestAmerica Inc TARL

Ordered by Method, Batch No., Client Sample ID.

Report No. : 68828

SDG No: JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6173019 GAMMA_GS									
J1V912									
M8R191AC	RA-228		9.92E-01 +- 2.2E-01		pCi/g		1.34E-01		
	RU-106		3.28E-02 +- 1.9E-01	U	pCi/g		3.26E-01		
	SB-125		2.37E-02 +- 5.2E-02	U	pCi/g		9.11E-02		
	U-235		2.78E-03 +- 1.1E-01	U	pCi/g		1.81E-01	1.00E+00	
	U-238		2.80E-01 +- 6.7E-01	U	pCi/g		1.10E+00		
	ZN-65		-5.76E-02 +- 6.8E-02	U	pCi/g		8.98E-02		
J1V913									
M8R2A1AC	AMERICIUM 241		-3.89E-02 +- 8.2E-02	U	pCi/g		1.35E-01		
	CE-144		-6.84E-02 +- 1.1E-01	U	pCi/g		1.88E-01		
	CO-60		6.45E-04 +- 1.6E-02	U	pCi/g		2.87E-02	5.00E-02	
	CS-134		2.76E-02 +- 1.9E-02	U	pCi/g		3.52E-02		
	CS-137		6.87E-04 +- 1.7E-02	U	pCi/g		2.96E-02	1.00E-01	
	EU-152		9.20E-03 +- 1.2E-01	U	pCi/g		8.07E-02	1.00E-01	
	EU-154		-7.97E-02 +- 5.4E-02	U	pCi/g		8.24E-02	1.00E-01	
	EU-155		1.13E-02 +- 5.8E-02	U	pCi/g		9.92E-02	1.00E-01	
	K-40		1.38E+01 +- 1.7E+00		pCi/g		2.38E-01		
	RA-226		5.55E-01 +- 8.7E-02		pCi/g		5.79E-02		
	RA-228		7.59E-01 +- 1.5E-01		pCi/g		1.09E-01		
	RU-106		3.09E-02 +- 1.4E-01	U	pCi/g		2.38E-01		
	SB-125		5.09E-03 +- 4.3E-02	U	pCi/g		7.29E-02		
	U-235		-5.34E-02 +- 1.1E-01	U	pCi/g		1.85E-01	1.00E+00	
	U-238		5.43E-02 +- 7.1E-01	U	pCi/g		1.18E+00		
	ZN-65		3.47E-04 +- 4.7E-02	U	pCi/g		6.76E-02		
J1V914									
M8R2C1AC	AMERICIUM 241		-5.47E-02 +- 9.8E-02	U	pCi/g		1.65E-01		
	CE-144		2.81E-02 +- 7.0E-02	U	pCi/g		1.23E-01		
	CO-60		-1.26E-02 +- 1.4E-02	U	pCi/g		2.23E-02	5.00E-02	
	CS-134		2.58E-02 +- 1.5E-02	U	pCi/g		2.90E-02		
	CS-137		8.89E-03 +- 1.3E-02	U	pCi/g		2.37E-02	1.00E-01	
	EU-152		8.29E-04 +- 3.5E-02	U	pCi/g		5.87E-02	1.00E-01	
	EU-154		-3.10E-02 +- 4.3E-02	U	pCi/g		7.03E-02	1.00E-01	
	EU-155		3.45E-02 +- 4.0E-02	U	pCi/g		6.82E-02	1.00E-01	
	K-40		1.37E+01 +- 1.7E+00		pCi/g		1.96E-01		
	RA-226		5.43E-01 +- 8.2E-02		pCi/g		4.11E-02		
	RA-228		8.22E-01 +- 1.4E-01		pCi/g		7.47E-02		
	RU-106		-3.46E-02 +- 9.8E-02	U	pCi/g		1.68E-01		

TestAmerica Inc RPD - Relative Percent Difference.
rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
mary2 V5.5.1 software.
A2002

Sample Results Summary**Date:** 24-Jun-16**TestAmerica Inc TARL**

Ordered by Method, Batch No., Client Sample ID.

Report No.: 68828**SDG No:** JP1047

Client Id Batch	Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	MDL	CRDL	RPD
6173019 GAMMA_GS									
J1V914									
M8R2C1AC	SB-125		1.62E-02 +- 2.9E-02	U	pCi/g		5.24E-02		
	U-235		4.91E-02 +- 7.0E-02	U	pCi/g		1.23E-01	1.00E+00	
	U-238		6.01E-02 +- 7.6E-01	U	pCi/g		1.32E+00		
	ZN-65		2.81E-02 +- 3.3E-02	U	pCi/g		5.31E-02		
No. of Results: 266									

TestAmerica Inc RPD - Relative Percent Difference.
rptTALRchSaSum U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan
mary2 V5.5.1
A2002

QC Results Summary
TestAmerica Inc TARL
 Ordered by Method, Batch No, QC Type,.

Date: 24-Jun-16

Report No. : 68828

SDG No.: JP1047

Batch	Work Order	Parameter	Result +- CSU (2 s)	Qual	Units	Tracer Yield	LCS Recovery	Bias	MDL
UIISO_IE_PLATE_AEA									
6173020 BLANK QC,	M8R221AA	U-234	-3.72E-03 +- 2.3E-02	U	pCi/g	91%			5.36E-02
		U-235	1.07E-02 +- 2.3E-02	U	pCi/g	91%			4.26E-02
		U-238	-5.58E-03 +- 2.4E-02	U	pCi/g	91%			5.86E-02
6173020 LCS,	M8R221AC	U-234	2.89E+00 +- 6.9E-01		pCi/g	79%	90%	-0.1	6.26E-02
		U-238	3.50E+00 +- 8.1E-01		pCi/g	79%	105%	0.0	7.20E-02
GAMMA_GS									
6173019 BLANK QC,	M8R211AA	AMERICIUM 241	-4.33E-04 +- 8.0E-03	U	pCi/g				1.37E-02
		CE-144	5.98E-03 +- 2.3E-02	U	pCi/g				4.08E-02
		CO-60	-5.56E-03 +- 7.6E-03	U	pCi/g				1.26E-02
		CS-134	1.15E-02 +- 9.5E-03	U	pCi/g				1.91E-02
		CS-137	1.72E-03 +- 7.1E-03	U	pCi/g				1.33E-02
		EU-152	-1.03E-02 +- 1.5E-02	U	pCi/g				2.45E-02
		EU-154	9.44E-03 +- 2.1E-02	U	pCi/g				4.39E-02
		EU-155	3.99E-04 +- 1.1E-02	U	pCi/g				1.87E-02
		K-40	-3.85E-02 +- 1.2E-01	U	pCi/g				2.26E-01
		RA-226	6.41E-02 +- 3.5E-02	U	pCi/g				4.58E-02
		RA-228	3.14E-02 +- 3.1E-02	U	pCi/g				6.34E-02
		RU-106	-3.13E-02 +- 5.7E-02	U	pCi/g				9.77E-02
		SB-125	6.26E-03 +- 1.5E-02	U	pCi/g				2.83E-02
		U-235	1.50E-03 +- 2.8E-02	U	pCi/g				4.59E-02
		U-238	1.60E-01 +- 1.7E-01		pCi/g				1.32E-01
		ZN-65	-2.23E-02 +- 2.0E-02	U	pCi/g				3.09E-02
6173019 LCS,	M8R211AC	CS-137	9.70E-01 +- 1.3E-01		pCi/g	101%	0.0	2.58E-02	
		RA-226	9.33E-01 +- 1.4E-01		pCi/g	82%	-0.2	3.77E-02	
		RA-228	4.77E-01 +- 1.1E-01		pCi/g	95%	0.0	8.69E-02	
		U-238	9.15E-01 +- 1.2E-01		pCi/g	76%	-0.2	4.02E-02	

No. of Results: 25

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-1
 Client Sample ID: J1V902

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Collection Date: 6/16/2016 7:40:00 AM
 Received Date: 6/20/2016 3:45:00 PM
 Matrix: Soil

Parameter	Result	Count	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Ordered by Client Sample ID, Batch No.			
									Total Sa Size	Aliquot Size	Primary Detector	
Batch: 6173019 AMERICIUM 241	GAMMA_GS -1.27E-02	U	1.8E-02	1.8E-02	2.92E-02 pCi/g		2.92E-02 pCi/g	-0.43 (-1.4)	6/21/16 11:49 p	371.0	GER16\$1	
CE-144	1.26E-02	U	5.3E-02	5.3E-02	8.90E-02 pCi/g		4.39E-02 pCi/g	0.14 0.47	6/21/16 11:49 p	g	371.0	GER16\$1
CO-60	-8.16E-03	U	1.6E-02	1.6E-02	2.63E-02 pCi/g		1.32E-02 pCi/g	-0.31 (-1.)	6/21/16 11:49 p	g	371.0	GER16\$1
CS-134	2.64E-02	U	1.7E-02	1.7E-02	3.14E-02 pCi/g		1.56E-02 pCi/g	0.84 (3.1)	6/21/16 11:49 p	g	371.0	GER16\$1
CS-137	8.68E-04	U	1.4E-02	1.4E-02	2.37E-02 pCi/g		1.18E-02 pCi/g	0.04 0.13	6/21/16 11:49 p	g	371.0	GER16\$1
EU-152	3.31E-03	U	3.0E-02	3.0E-02	5.07E-02 pCi/g		2.54E-02 pCi/g	0.07 0.22	6/21/16 11:49 p	g	371.0	GER16\$1
EU-154	3.08E-03	U	5.1E-02	5.1E-02	8.99E-02 pCi/g		4.50E-02 pCi/g	0.03 0.12	6/21/16 11:49 p	g	371.0	GER16\$1
EU-155	3.71E-02	U	2.6E-02	2.6E-02	4.48E-02 pCi/g		2.24E-02 pCi/g	0.83 (2.9)	6/21/16 11:49 p	g	371.0	GER16\$1
K-40	1.38E+01		1.7E+00	1.7E+00	2.63E-01 pCi/g		1.32E-01 pCi/g	(52.4) (16.7)	6/21/16 11:49 p	g	371.0	GER16\$1
RA-226	4.75E-01		7.8E-02	7.8E-02	4.25E-02 pCi/g		2.13E-02 pCi/g	(11.2) (12.1)	6/21/16 11:49 p	g	371.0	GER16\$1

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-1
 Client Sample ID: J1V902

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, LC	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	8.32E-01	1.5E-01	1.5E-01	9.30E-02	pCi/g	(9.)	6/21/16 11:49 p	(10.8)	371.0	g	GER16\$1
RU-106	-5.71E-02	U	1.1E-01	1.1E-01	pCi/g	-0.32	6/21/16 11:49 p	-1(1.)	371.0	g	GER16\$1
SB-125	2.50E-03	U	2.9E-02	2.9E-02	pCi/g	0.05	6/21/16 11:49 p	0.17	371.0	g	GER16\$1
U-235	4.65E-02	U	5.6E-02	5.6E-02	pCi/g	0.5	6/21/16 11:49 p	(1.7)	371.0	g	GER16\$1
U-238	7.70E-01	2.7E-01	2.7E-01	2.93E-01	pCi/g	0.17	6/21/16 11:49 p	(2.6)	371.0	g	GER16\$1
ZN-65	5.45E-03	U	3.8E-02	3.8E-02	pCi/g	0.1	6/21/16 11:49 p	(5.8)	371.0	g	GER16\$1
Batch: 6173020 UISO_1E_PLATE_AEA Work Order: M8R1X1AA Report DB ID: 9M8R1X10											
U-234	2.83E-01	1.2E-01	1.3E-01	5.42E-02	pCi/g	95%	(5.2)	6/23/16 02:04 p		1.01	ALP1
U-235	-2.49E-03	U	2.5E-02	2.5E-02	pCi/g	1.00E+00	(4.4)			g	ALP1
U-238	4.86E-01	1.6E-01	1.8E-01	1.06E-01	pCi/g	95%	-0.2	6/23/16 02:04 p		1.01	ALP1
				4.03E-02		95%	(4.6)	6/23/16 02:04 p		1.01	ALP1
						1.00E+00	(5.3)			g	
Ratio U-234/238 = 0.6											

No. of Results: 19 Comments:

TestAmerica Inc MDCL/MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCL/MDA/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-2
 Client Sample ID: J1V903

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Collection Date: 6/16/2016 8:15:00 AM
 Received Date: 6/20/2016 3:45:00 PM
 Matrix: SOIL

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lvl	Rpt Unit, CRD1(LC)	Yield CRD1(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6173019 AMERICIUM 241	GAMMA_GS 1.02E-02	U	1.1E-01	1.1E-01	1.98E-01	pCi/g	9.89E-02	0.05	6/21/16 11:49 p	299.9	g	GER11\$1
CE-144	-2.89E-02	U	7.9E-02	7.9E-02	1.35E-01	pCi/g	6.65E-02	-0.21	6/21/16 11:49 p	299.9	g	GER11\$1
CO-60	2.39E-03	U	1.8E-02	1.8E-02	3.14E-02	pCi/g	1.57E-02	0.08	6/21/16 11:49 p	299.9	g	GER11\$1
CS-134	4.67E-02	U	1.9E-02	1.9E-02	3.61E-02	pCi/g	1.80E-02	0.27	(1.3) (5.)	299.9	g	GER11\$1
CS-137	1.00E-02	U	1.6E-02	1.6E-02	2.82E-02	pCi/g	1.41E-02	1.00E-01	(1.3)	299.9	g	GER11\$1
EU-152	-4.07E-02	U	4.0E-02	4.0E-02	6.30E-02	pCi/g	3.15E-02	1.00E-01	-0.65 (-2.)	299.9	g	GER11\$1
EU-154	-3.65E-02	U	5.4E-02	5.4E-02	8.97E-02	pCi/g	4.50E-02	1.00E-01	-0.41 (-1.3)	299.9	g	GER11\$1
EU-155	5.91E-02	U	4.6E-02	4.6E-02	7.99E-02	pCi/g	3.99E-02	1.00E-01	0.74 (-2.5)	299.9	g	GER11\$1
K-40	1.45E+01		1.8E+00	1.8E+00	2.77E-01	pCi/g	1.39E-01	(15.9)	6/21/16 11:49 p	299.9	g	GER11\$1
RA-226	5.54E-01		8.7E-02	8.7E-02	4.70E-02	pCi/g	2.35E-02	(11.8) (12.7)	6/21/16 11:49 p	299.9	g	GER11\$1

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-2
 Client Sample ID: J1V903

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Collection Date: 6/16/2016 8:15:00 AM
 Received Date: 6/20/2016 3:45:00 PM
 Matrix: SOIL

Parameter	Result	Count	CSU (2 s)	MDL, Action_Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	7.85E-01	1.6E-01	1.6E-01	9.75E-02	pCi/g	(8.1)	6/21/16 11:49 p (9.6)	6/21/16 11:49 p (9.6)	299.9	g	GER11\$1
RU-106	-1.17E-02	U	1.2E-01	1.2E-01	pCi/g	2.10E-01	-0.06	6/21/16 11:49 p -0.19	299.9	g	GER11\$1
SB-125	4.79E-04	U	3.6E-02	3.6E-02	pCi/g	6.20E-02	0.01	6/21/16 11:49 p 0.03	299.9	g	GER11\$1
U-235	4.83E-02	U	8.0E-02	8.0E-02	pCi/g	1.41E-01	0.34	6/21/16 11:49 p 0.35	299.9	g	GER11\$1
U-238	5.13E-01	U	8.2E-01	8.2E-01	pCi/g	1.46E+00	(1.2)	6/21/16 11:49 p (1.3)	299.9	g	GER11\$1
ZN-65	-3.87E-02	U	4.5E-02	4.5E-02	pCi/g	5.78E-02	-0.67	6/21/16 11:49 p (-1.7)	299.9	g	GER11\$1
Batch: 6173020	UISOIE_PLATE_AEA	Work Order:	M8R101AA	Report DB ID:	9M8R1010						
U-234	2.44E-01	1.2E-01	1.3E-01	1.01E-01	pCi/g	3.58E-02	81% (3.7)	6/23/16 02:02 p (3.7)	1.03	ALP3	
U-235	2.60E-02	U	4.0E-02	4.0E-02	pCi/g	5.73E-02	1.00E+00	6/23/16 02:02 p 0.45	1.03	ALP3	
U-238	2.40E-01	1.2E-01	1.3E-01	1.06E-01	pCi/g	1.45E-02	1.00E+00 81% (1.3)	6/23/16 02:02 p (2.3)	1.03	ALP3	
				3.85E-02		1.00E+00 (3.7)			1.03		
							Ratio U-234/238 = 1.0		9		

No. of Results: 19 Comments:

TestAmerica Inc MDCLMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCLMDA,Mdl, Total Uncrt, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-3
 Client Sample ID: J1V904

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lvl	Rpt Unit, L.C	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Ordered by Client Sample ID, Batch No.	
											Primary Detector	
Batch: 6173019 AMERICIUM 241	GAMMA_GS -5.94E-04	U	1.7E-02	1.7E-02	2.91E-02 pCi/g		-0.02	6/21/16 11:49 p		395.1	GER18\$1	
CE-144	7.97E-03	U	4.9E-02	4.9E-02	8.48E-02 pCi/g	1.45E-02	-0.07			g		
CO-60	2.04E-03	U	1.3E-02	1.3E-02	2.43E-02 pCi/g	4.19E-02	0.09	6/21/16 11:49 p		395.1	GER18\$1	
CS-134	2.23E-02	U	1.5E-02	1.5E-02	2.86E-02 pCi/g	1.22E-02	5.00E-02	0.3		g		
CS-137	-7.96E-03	U	1.3E-02	1.3E-02	2.09E-02 pCi/g	1.43E-02	0.78	6/21/16 11:49 p		395.1	GER18\$1	
EU-152	-2.54E-03	U	2.7E-02	2.7E-02	4.57E-02 pCi/g	1.05E-02	1.00E-01	-0.38	6/21/16 11:49 p		395.1	GER18\$1
EU-154	-4.24E-03	U	4.2E-02	4.2E-02	7.46E-02 pCi/g	2.29E-02	1.00E-01	-0.19		g		
EU-155	3.28E-02	U	2.6E-02	2.6E-02	4.31E-02 pCi/g	3.74E-02	1.00E-01	-0.2	6/21/16 11:49 p		395.1	GER18\$1
K-40	1.45E+01		1.7E+00	1.7E+00	1.67E-01 pCi/g	2.15E-02	1.00E-01	0.76	6/21/16 11:49 p		395.1	GER18\$1
RA-226	4.85E-01		7.8E-02	7.8E-02	3.48E-02 pCi/g	8.44E-02	(36.4)	(2.6)	6/21/16 11:49 p		395.1	GER18\$1
						(13.9)	(17.)	(12.5)	6/21/16 11:49 p		395.1	GER18\$1
										g		

TestAmerica Inc MDC|MDA,L.C - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/MDL, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-3
Client Sample ID: J1V904

SDG: JP1047
Report No. : 68828
COC No. : RC-148-224

Collection Date: 6/16/2016 7:55:00 AM
Received Date: 6/20/2016 3:45:00 PM
Matrix: SOIL

Parameter	Result	Count	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Ordered by Client Sample ID, Batch No.		
									Total Sa Size	Aliquot Size	Primary Detector
RA-228	8.54E-01	1.4E-01	1.4E-01	8.10E-02	pCi/g	(10.5)	6/21/16 11:49 p	(11.9)	395.1	g	GER18\$1
RU-106	-5.10E-02	U	9.6E-02	9.6E-02	pCi/g	-0.32	6/21/16 11:49 p	-1(1.1)	395.1	g	GER18\$1
SB-125	-3.64E-02	U	2.5E-02	2.5E-02	pCi/g	-0.92	6/21/16 11:49 p	-2(2.9)	395.1	g	GER18\$1
U-235	5.62E-02	U	5.3E-02	5.3E-02	pCi/g	0.6	6/21/16 11:49 p	(2.1)	395.1	g	GER18\$1
U-238	3.60E-01	2.7E-01	2.7E-01	2.81E-01	pCi/g	(1.3)	6/21/16 11:49 p	(2.7)	395.1	g	GER18\$1
ZN-65	6.01E-03	U	3.1E-02	3.1E-02	pCi/g	0.13	6/21/16 11:49 p	0.39	395.1	g	GER18\$1
Batch: 6173020	UISO_IIE_PLATE_AEA		Work Order: M8R111AA		Report DB ID: 9M8R1110						
U-234	2.45E-01	1.1E-01	1.2E-01	6.36E-02	pCi/g	78%	(3.8)	6/23/16 02:03 p	(4.)	1.05	ALP6
U-235	3.85E-02	U	4.6E-02	4.82E-02	pCi/g	78%	0.8	6/23/16 02:03 p	(1.7)	1.05	ALP6
U-238	3.33E-01	1.3E-01	1.5E-01	7.32E-02	pCi/g	78%	(4.5)	6/23/16 02:03 p	(4.5)	1.05	ALP6
										Ratio U-234/238 = 0.7	

No. of Results: 19 Comments:

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA|MDL Total Uncert, RDL or not identified by gamma scan software.
V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-4
Client Sample ID: J1V905

SDG: JP1047
Report No. : 68828
COC No. : RC-148-224
Matrix: SOIL

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Rep Date	Ordered by Client Sample ID, Batch No.			
										Total Sa Size	Aliquot Size	Primary Detector	
Batch: 6173019 AMERICIUM 241	GAMMA_GS	2.72E-02	U	6.8E-02	6.8E-02	1.19E-01	pCi/g	Report DB ID: M8R121AC	Report DB ID: 9M8R1210	6/21/16 11:50 p	347.4	GER7\$1	
CE-144	-5.50E-02	U	1.1E-01	1.1E-01	1.75E-01	5.94E-02	pCi/g	5.94E-02	0.8	6/21/16 11:50 p	g	347.4	GER7\$1
CO-60	3.93E-03	U	2.6E-02	2.6E-02	4.58E-02	8.62E-02	pCi/g	8.62E-02	-0.31 (-1.)	6/21/16 11:50 p	g	347.4	GER7\$1
CS-134	2.65E-02	U	2.8E-02	2.8E-02	4.92E-02	2.30E-02	pCi/g	2.30E-02	0.09	6/21/16 11:50 p	347.4	GER7\$1	
CS-137	-1.64E-02	U	2.4E-02	2.4E-02	3.94E-02	2.45E-02	pCi/g	2.45E-02	0.54 (1.9)	6/21/16 11:50 p	g	347.4	GER7\$1
EU-152	-2.84E-02	U	5.4E-02	5.4E-02	9.19E-02	1.97E-02	pCi/g	1.97E-02	1.00E-01 (-1.4)	6/21/16 11:50 p	g	347.4	GER7\$1
EU-154	4.22E-02	U	7.6E-02	7.6E-02	1.39E-01	4.60E-02	pCi/g	4.60E-02	1.00E-01 (-1.)	6/21/16 11:50 p	347.4	GER7\$1	
EU-155	3.34E-02	U	5.6E-02	5.6E-02	9.50E-02	6.96E-02	pCi/g	6.96E-02	1.00E-01 (1.1)	6/21/16 11:50 p	g	347.4	GER7\$1
K-40	1.37E+01		1.9E+00	1.9E+00	3.50E-01	4.75E-02	pCi/g	4.75E-02	1.00E-01 (1.2)	6/21/16 11:50 p	347.4	GER7\$1	
RA-226	5.72E-01		1.1E-01	1.1E-01	7.20E-02	1.76E-01	pCi/g	1.76E-01 (7.9)	6/21/16 11:50 p (10.3)	6/21/16 11:50 p (10.3)	347.4	GER7\$1	
					3.61E-02					g			

TestAmerica Inc MDClMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDclMDa/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-4
Client Sample ID: J1V905

SDG: JP1047
Report No. : 68828
COC No. : RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRD(L)R	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	7.93E-01	2.2E-01	2.2E-01	1.51E-01	pCi/g	(5.2)	(5.2)	6/21/16 11:50 p	347.4	g	GER7\$1
RU-106	-1.33E-01	U	1.8E-01	1.8E-01	pCi/g	7.57E-02	(7.2)	-0.44	6/21/16 11:50 p	g	GER7\$1
SB-125	-4.67E-02	U	5.2E-02	5.2E-02	pCi/g	1.50E-01	-1(1.4)	-0.56	6/21/16 11:50 p	g	347.4
U-235	4.49E-02	U	1.1E-01	1.1E-01	pCi/g	8.39E-02	4.19E-02	-1(1.8)	6/21/16 11:50 p	g	GER7\$1
U-238	4.36E-01	U	6.5E-01	6.5E-01	pCi/g	9.21E-02	1.00E+00	-0.8	6/21/16 11:50 p	g	347.4
ZN-65	-1.76E-02	U	6.2E-02	6.2E-02	pCi/g	5.55E-01	5.55E-01	(1.3)	6/21/16 11:50 p	g	347.4
<hr/>											
Batch: 6173020	UISO_1E_PLATE_AEA		Work Order: M8R121AA		Report DB ID: 9M8R1210						
U-234	1.44E-01	1.0E-01	1.1E-01	1.02E-01	pCi/g	3.43E-02	1.00E+00	(1.4)	6/23/16 02:04 p	g	ALP9
U-235	-1.04E-02	U	3.3E-02	3.3E-02	pCi/g	8.78E-02	2.73E-02	0.12	6/23/16 02:04 p	g	ALP9
U-238	1.90E-01	U	1.6E-01	1.6E-01	pCi/g	2.28E-01	9.71E-02	-0.63	6/23/16 02:04 p	g	ALP9
<hr/>											
No. of Results:	19	Comments:	Ratio U-234/238 = 0.8								

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.
V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-5
 Client Sample ID: J1V906

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224
 Matrix: SOIL

Collection Date: 6/16/2016 8:25:00 AM
 Received Date: 6/20/2016 3:45:00 PM

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector	Ordered by Client Sample ID, Batch No.
													Work Order: M8R131AC
Batch: 6173019 AMERICIUM 241	GAMMA_GS -1.31E-01	U	9.0E-02	9.0E-02	1.43E-01	pCi/g	7.14E-02		-0.92 (-2.9)	6/21/16 11:50 p		379.7 g	GER10\$1
CE-144	-1.92E-02	U	1.2E-01	1.2E-01	1.99E-01	pCi/g			-0.1	6/21/16 11:50 p		379.7 g	GER10\$1
CO-60	-1.51E-02	U	1.6E-02	1.6E-02	2.65E-02	pCi/g	9.81E-02		-0.32			379.7 g	GER10\$1
CS-134	3.95E-02	U	1.9E-02	1.9E-02	3.57E-02	pCi/g	1.78E-02	5.00E-02	-0.57 (-1.8)	6/21/16 11:50 p		379.7 g	GER10\$1
CS-137	1.30E-02	U	1.7E-02	1.7E-02	3.02E-02	pCi/g			(1.1) (4.1)	6/21/16 11:50 p		379.7 g	GER10\$1
EU-152	-1.11E-01	U	1.3E-01	1.3E-01	8.58E-02	pCi/g	1.51E-02	1.00E-01	0.43 (1.5) (-1.3)	6/21/16 11:50 p		379.7 g	GER10\$1
EU-154	-2.27E-02	U	5.6E-02	5.6E-02	4.29E-02	pCi/g	4.29E-02	1.00E-01	-0.43 (-1.7)	6/21/16 11:50 p		379.7 g	GER10\$1
EU-155	-5.76E-02	U	6.3E-02	6.3E-02	1.02E-01	pCi/g	4.69E-02	1.00E-01	-0.24 -0.82	6/21/16 11:50 p		379.7 g	GER10\$1
K-40	1.42E+01		1.8E+00	1.8E+00	2.37E-01	pCi/g	5.10E-02	1.00E-01	-0.56 (-1.8)	6/21/16 11:50 p		379.7 g	GER10\$1
RA-226	4.82E-01		8.1E-02	8.1E-02	5.64E-02	pCi/g	1.19E-01		(59.7) (16.) (8.5) (11.9)	6/21/16 11:50 p		379.7 g	GER10\$1

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-5
 Client Sample ID: J1V906

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRD(L)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector	Ordered by Client Sample ID, Batch No.
RA-228	8.23E-01		1.6E-01	1.6E-01	1.10E-01	pCi/g		(7.5)	6/21/16 11:50 p		379.7	GER10\$1	
RU-106	-4.16E-02	U	1.5E-01	1.5E-01	2.52E-01	pCi/g		(10.6)			9		
SB-125	-8.89E-03	U	4.4E-02	4.4E-02	7.28E-02	pCi/g		1.25E-01	-0.17	6/21/16 11:50 p		379.7	GER10\$1
U-235	5.95E-02	U	1.2E-01	1.2E-01	1.98E-01	pCi/g		3.63E-02	-0.41	6/21/16 11:50 p		9	
U-238	1.28E+00	U	7.7E-01	7.7E-01	1.30E+00	pCi/g		9.92E-02	1.00E+00	(1.)		379.7	GER10\$1
ZN-65	1.19E-02	U	4.9E-02	4.9E-02	7.18E-02	pCi/g		6.49E-01	0.99	6/21/16 11:50 p		9	
Batch: 673020 UISO_1E_PLATE_AEA													
U-234	2.74E-01		1.4E-01	1.5E-01	1.26E-01	pCi/g		66%	(2.2)	6/23/16 02:04 p		1.15	ALP12
U-235	1.69E-02	U	5.3E-02	5.3E-02	4.75E-02			(3.7)			9		
U-238	3.85E-01		2.3E-01	2.4E-01	3.15E-01	pCi/g		66%	0.15	6/23/16 02:04 p		1.15	ALP12
					1.42E-01			66%	(1.2)	6/23/16 02:04 p		9	
								0.49	(3.3)			379.7	GER10\$1
Ratio U-234/238 = 0.7													
No. of Results:	19	Comments:											

TestAmerica Inc MDCLMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCLMDA/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-6
 Client Sample ID: J1V907

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Rep Date	Total Sa Size	Aliquot Size	Primary Detector
Report DB ID: 9M8R1410											
Batch: 6173019 AMERICIUM 241	GAMMA_GS -4.45E-03	U 2.2E-02	Work Order: M8R141AC 2.2E-02	3.66E-02	pCi/g 1.83E-02	-0.12	6/21/16 11:50 p	320.1	GER19\$1 g		
CE-144	-5.95E-02	U 6.5E-02	6.5E-02	1.03E-01	pCi/g 5.06E-02	-0.41 -(1.8)	6/21/16 11:50 p	320.1	GER19\$1 g		
CO-60	-1.54E-02	U 1.7E-02	1.7E-02	2.69E-02	pCi/g 1.35E-02	-0.57 -(1.8)	6/21/16 11:50 p	320.1	GER19\$1 g		
CS-134	4.37E-02	U 2.0E-02	2.0E-02	3.77E-02	pCi/g 1.88E-02	(1.2) (4.4)	6/21/16 11:50 p	320.1	GER19\$1 g		
CS-137	7.66E-03	U 1.6E-02	1.6E-02	2.81E-02	pCi/g 1.41E-02	1.00E-01 0.96	6/21/16 11:50 p	320.1	GER19\$1 g		
EU-152	1.24E-02	U 3.4E-02	3.4E-02	6.00E-02	pCi/g 3.00E-02	0.21 0.72	6/21/16 11:50 p	320.1	GER19\$1 g		
EU-154	1.35E-02	U 4.9E-02	4.9E-02	8.80E-02	pCi/g 4.41E-02	1.00E-01 0.55	6/21/16 11:50 p	320.1	GER19\$1 g		
EU-155	3.94E-02	U 3.3E-02	3.3E-02	5.58E-02	pCi/g 2.79E-02	1.00E-01 (2.4)	6/21/16 11:50 p	320.1	GER19\$1 g		
K-40	1.44E+01		1.7E+00	1.7E+00	pCi/g 1.36E-01	(53.) (16.5)	6/21/16 11:50 p	320.1	GER19\$1 g		
RA-226	5.53E-01		1.0E-01	4.62E-02	pCi/g 2.31E-02	(12.) (11.)	6/21/16 11:50 p	320.1	GER19\$1 g		

TestAmerica Inc MDCL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCL|MDA|MdL Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-6
 Client Sample ID: J1V907

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Ordered by Client Sample ID, Batch No.		
								Total Sa Size	Aliquot Size	Primary Detector
RA-228	7.69E-01	1.7E-01	1.7E-01	1.03E-01	pCi/g	(7.4)	6/21/16 11:50 p	320.1	GER19\$1	
RU-106	-9.65E-02	U	1.3E-01	1.3E-01	pCi/g	(8.8)	6/21/16 11:50 p	g	GER19\$1	
SB-125	1.77E-02	U	3.3E-02	3.3E-02	pCi/g	1.01E-01	6/21/16 11:50 p	320.1	GER19\$1	
U-235	4.18E-03	U	6.4E-02	6.4E-02	pCi/g	5.82E-02	6/21/16 11:50 p	g	GER19\$1	
U-238	5.88E-01	3.3E-01	3.3E-01	3.61E-01	pCi/g	2.90E-02	(1.1)	6/21/16 11:50 p	320.1	GER19\$1
ZN-65	5.07E-03	U	3.9E-02	3.9E-02	pCi/g	1.10E-01	6/21/16 11:50 p	320.1	GER19\$1	
<hr/>										
Batch: 6173020	UISO_1E_PLATE_AEA	Work Order: M8R141AA	Report DB ID: 9M8R1410							
U-234	4.31E-01	1.4E-01	1.6E-01	5.13E-02	pCi/g	90%	(8.4)	6/23/16 03:12 p	1.16	ALP222
U-235	1.05E-02	U	2.3E-02	2.3E-02	pCi/g	1.41E-02	1.00E+00	(5.4)	g	ALP222
U-238	2.35E-01	1.0E-01	1.1E-01	5.76E-02	pCi/g	9.60E-03	1.00E+00	0.92	g	ALP222
				1.72E-02		90%	(4.1)	6/23/16 03:12 p	1.16	ALP222
						0.09	6/21/16 11:50 p	320.1	g	
						0.26				
<hr/>										
No. of Results:	19	Comments:								
Ratio U-234/238 = 1.8										

TestAmerica Inc MDC|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-7
Client Sample ID: J1V908

SDG: JP1047

Report No. : 68828

COC No. : RC-148-224

Collection Date: 6/16/2016 9:37:00 AM

Received Date: 6/20/2016 3:45:00 PM

Matrix: SOIl

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size ,	Aliquot Size	Primary Detector
Batch: 6173019 AMERICIUM 241	GAMMA_GS 2.32E-02	U	1.9E-02	1.9E-02	3.22E-02	pCi/g 1.61E-02		Report DB ID: 9M8R1510	0.72 (2.5)	6/21/16 08:19 p		372.8 g
CE-144	-1.07E-02	U	5.3E-02	5.3E-02	8.83E-02	pCi/g 4.36E-02			-0.12 -0.4	6/21/16 08:19 p		372.8 g
CO-60	3.80E-03	U	1.6E-02	1.6E-02	2.91E-02	pCi/g 1.46E-02			0.13 0.47	6/21/16 08:19 p		372.8 g
CS-134	2.77E-02	U	1.7E-02	1.7E-02	3.11E-02	pCi/g 1.55E-02			0.89 (3.3)	6/21/16 08:19 p		372.8 g
CS-137	-8.96E-03	U	1.5E-02	1.5E-02	2.40E-02	pCi/g 1.20E-02			-0.37 -(1.2)	6/21/16 08:19 p		372.8 g
EU-152	-4.53E-02	U	3.0E-02	3.0E-02	4.59E-02	pCi/g 2.30E-02			-0.99 -(3.1)	6/21/16 08:19 p		372.8 g
EU-154	-1.92E-03	U	5.1E-02	5.1E-02	8.87E-02	pCi/g 4.44E-02			-0.02 -0.08	6/21/16 08:19 p		372.8 g
EU-155	3.42E-02	U	2.6E-02	2.6E-02	4.51E-02	pCi/g 2.25E-02			0.76 (2.6)	6/21/16 08:19 p		372.8 g
K-40	1.36E+01		1.7E+00	1.7E+00	2.86E-01	pCi/g 1.44E-01			(47.6) (16.5)	6/21/16 08:19 p		372.8 g
RA-226	5.19E-01		8.4E-02	8.4E-02	4.20E-02	pCi/g 2.11E-02			(12.3) (12.3)	6/21/16 08:19 p		372.8 g

TestAmerica Inc MDCLMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCLMDA,Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-7
 Client Sample ID: J1V908

Collection Date: 6/16/2016 9:37:00 AM

Received Date: 6/20/2016 3:45:00 PM

Matrix: SOIl

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	7.75E-01	1.4E-01	1.4E-01	9.64E-02	pCi/g	(8.)	6/21/16 08:19 p	6/21/16 08:19 p	372.8	g	GER16\$1
RU-106	-2.66E-02	U	1.0E-01	1.0E-01	pCi/g	4.82E-02	(11.1)	-0.15	6/21/16 08:19 p	g	GER16\$1
SB-125	1.03E-02	U	2.9E-02	2.9E-02	pCi/g	8.87E-02	-0.51	0.2	6/21/16 08:19 p	g	GER16\$1
U-235	-1.92E-02	U	5.9E-02	5.9E-02	pCi/g	2.51E-02	0.72	0.72	6/21/16 08:19 p	g	GER16\$1
U-238	5.44E-01	2.7E-01	2.7E-01	9.54E-02	pCi/g	4.77E-02	1.00E+00	-0.66	6/21/16 08:19 p	g	GER16\$1
ZN-65	-4.41E-02	U	4.7E-02	4.7E-02	pCi/g	1.46E-01	(4.1)	(1.9)	6/21/16 08:19 p	g	GER16\$1
Batch: 6173020 UISO_1E_PLATE_AEA											
U-234	1.64E-01	1.1E-01	1.1E-01	6.72E-02	pCi/g	71%	(2.4)	6/23/16 03:13 p	1.05	ALP225	
U-235	-2.20E-03	U	3.7E-02	3.7E-02	pCi/g	1.54E-02	1.00E+00	(2.9)	g	ALP225	
U-238	1.98E-01	1.2E-01	1.3E-01	7.73E-02	pCi/g	71%	-0.03	6/23/16 03:13 p	1.05	ALP225	
Ratio U-234/238 = 0.8											
No. of Results:	19	Comments:									

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rpS|TRchSample U Qual - Analyzed for but not detected above limiting criteria, Mdc|MdA|MdI, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-8
 Client Sample ID: J1V909

SDG: JP1047

Report No. : 68828

COC No. : RC-148-224

Collection Date: 6/16/2016 9:15:00 AM

Received Date: 6/20/2016 3:45:00 PM

Matrix: SOIl

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotCert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6173019 GAMMA_GS											
AMERICIUM 241	-7.66E-03	U	2.0E-02	2.0E-02	3.36E-02 pCi/g	1.68E-02	-0.23	6/21/16 08:19 p	339.0	g	GER17\$1
CE-144	2.42E-02	U	6.4E-02	6.4E-02	9.69E-02 pCi/g	4.78E-02	-0.76	6/21/16 08:19 p	339.0	g	GER17\$1
CO-60	-4.25E-03	U	1.5E-02	1.5E-02	2.65E-02 pCi/g	1.33E-02	0.25	6/21/16 08:19 p	339.0	g	GER17\$1
CS-134	2.93E-02	U	1.7E-02	1.7E-02	3.23E-02 pCi/g	1.61E-02	0.75	6/21/16 08:19 p	339.0	g	GER17\$1
CS-137	9.80E-04	U	1.5E-02	1.5E-02	2.52E-02 pCi/g	1.26E-02	-0.16	6/21/16 08:19 p	339.0	g	GER17\$1
EU-152	3.43E-02	U	3.3E-02	3.3E-02	5.76E-02 pCi/g	3.00E-02	-0.56	6/21/16 08:19 p	339.0	g	GER17\$1
EU-154	-2.53E-02	U	4.9E-02	4.9E-02	8.22E-02 pCi/g	4.12E-02	0.91	6/21/16 08:19 p	339.0	g	GER17\$1
EU-155	2.75E-02	U	2.8E-02	2.8E-02	4.94E-02 pCi/g	2.46E-02	0.04	6/21/16 08:19 p	339.0	g	GER17\$1
K-40	1.59E+01		1.9E+00	1.9E+00	2.47E-01 pCi/g	1.24E-01	0.13	6/21/16 08:19 p	339.0	g	GER17\$1
RA-226	5.68E-01		9.3E-02	9.3E-02	4.26E-02 pCi/g	2.14E-02	(13.3)	6/21/16 08:19 p	339.0	g	GER17\$1
Ordered by Client Sample ID, Batch No.											

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA|MDL Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-8
 Client Sample ID: J1V909

SDG: JP1047

Report No. : 68828

COC No. : RC-148-224

Collection Date: 6/16/2016 9:15:00 AM

Received Date: 6/20/2016 3:45:00 PM

Matrix: SOIl

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector	Ordered by Client Sample ID, Batch No.	
												GER17\$1	
RA-228	8.59E-01	1.6E-01	1.6E-01	8.46E-02	pCi/g	(10.2)	6/21/16 08:19 p	339.0	g	g	g	GER17\$1	
RU-106	-4.45E-03	U	1.1E-01	1.1E-01	1.98E-01	4.24E-02	(10.6)	-0.02	6/21/16 08:19 p	339.0	g	g	
SB-125	2.64E-03	U	2.9E-02	2.9E-02	5.05E-02	pCi/g	9.81E-02	-0.08	6/21/16 08:19 p	339.0	g	g	
U-235	7.58E-02	U	6.0E-02	6.0E-02	1.05E-01	pCi/g	2.52E-02	0.18	6/21/16 08:19 p	339.0	g	g	
U-238	7.07E-01	3.3E-01	3.3E-01	3.24E-01	5.25E-02	1.00E+00	7.72	0.72	6/21/16 08:19 p	339.0	g	g	
ZN-65	-7.51E-03	U	4.0E-02	4.0E-02	5.84E-02	pCi/g	1.62E-01	(2.5)	6/21/16 08:19 p	339.0	g	g	
					2.88E-02		(4.3)	(2.2)	6/21/16 08:19 p	339.0	g	g	
								-0.13	6/21/16 08:19 p	339.0	g	g	
								-0.37					
Batch: 6173020	UISO_1E_PLATE_AEA		Work Order: M8R161AA			Report DB ID: 9M8R1610							
U-234	2.95E-01	1.2E-01	1.3E-01	6.05E-02	pCi/g	93%	(4.9)	6/24/16 04:21 a	1.02	ALP1	g	g	
U-235	9.00E-03	U	2.5E-02	2.5E-02	5.61E-02	1.75E-02	1.00E+00	(4.4)	6/24/16 04:21 a	1.02	ALP1	g	g
U-238	2.24E-01	1.1E-01	1.2E-01	1.08E-01	pCi/g	1.54E-02	93%	0.16	6/24/16 04:21 a	1.02	ALP1	g	g
						4.12E-02	1.00E+00	0.71	6/24/16 04:21 a	1.02	ALP1	g	g
								(3.7)					
No. of Results:	19	Comments:											

TestAmerica Inc MDCTMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDct/MDa/Mdl, Total Uncrt, RDL or not identified by gamma scan software.
 V5.1 A2002

Ratio U-234/238 = 1.3

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-9
 Client Sample ID: J1V910

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224
 Matrix: SOIL

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	Work Order: M8R171AC	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector	Ordered by Client Sample ID, Batch No.
Batch: 6173019 AMERICIUM 241	GAMMA_GS 9.58E-03	U	1.0E-01	1.0E-01	1.83E-01	pCi/g 9.18E-02				0.05	6/21/16 08:19 p			328.3 g
CE-144	7.30E-02	U	7.4E-02	7.4E-02	1.32E-01	pCi/g 6.52E-02				0.18	6/21/16 08:19 p			328.3 g
CO-60	-1.26E-02	U	1.6E-02	1.6E-02	2.56E-02	pCi/g 1.29E-02				0.55 (2.)	6/21/16 08:19 p			328.3 g
CS-134	2.49E-02	U	2.3E-02	2.3E-02	3.38E-02	pCi/g 1.68E-02				-0.49 (-1.6)	6/21/16 08:19 p			328.3 g
CS-137	-1.28E-03	U	1.5E-02	1.5E-02	2.49E-02	pCi/g 1.25E-02				0.74 (2.1)	6/21/16 08:19 p			328.3 g
EU-152	-5.31E-03	U	3.8E-02	3.8E-02	6.29E-02	pCi/g 3.15E-02				-0.05 -0.17	6/21/16 08:19 p			328.3 g
EU-154	-6.16E-03	U	5.4E-02	5.4E-02	9.28E-02	pCi/g 4.65E-02				-0.08 -0.28	6/21/16 08:19 p			328.3 g
EU-155	4.97E-02	U	4.4E-02	4.4E-02	7.61E-02	pCi/g 3.80E-02				-0.07 -0.23	6/21/16 08:19 p			328.3 g
K-40	1.49E+01		1.8E+00	1.8E+00	1.94E-01	pCi/g 9.76E-02				0.65 (2.2)	6/21/16 08:19 p			328.3 g
RA-226	5.44E-01		9.2E-02	9.2E-02	4.42E-02	pCi/g 2.21E-02				(76.7) (16.1)	6/21/16 08:19 p			328.3 g
										(12.3) (11.8)	6/21/16 08:19 p			328.3 g

TestAmerica Inc MDC|MDA|Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, Mdcf|MDa|MdI, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-9
 Client Sample ID: J1V910

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	9.91E-01	1.7E-01	1.7E-01	9.58E-02	pCi/g	(10.3)	6/21/16 08:19 p		328.3	g	GER11\$1
RU-106	2.48E-02	U	1.1E-01	1.1E-01	2.00E-01	4.79E-02	(11.5)		328.3	g	GER11\$1
SB-125	4.18E-04	U	3.3E-02	3.3E-02	5.76E-02	pCi/g	0.12	6/21/16 08:19 p		328.3	g
U-235	1.38E-02	U	7.8E-02	7.8E-02	1.35E-01	pCi/g	0.43		328.3	g	GER11\$1
U-238	5.79E-01	U	8.4E-01	8.4E-01	1.49E+00	pCi/g	2.87E-02	6/21/16 08:19 p	328.3	g	GER11\$1
ZN-65	1.39E-03	U	4.1E-02	4.1E-02	5.93E-02	pCi/g	0.03	6/21/16 08:19 p	328.3	g	GER11\$1
Batch: 6173020 UISO_1E_PLATE_AEA Work Order: M8R171AA Report DB ID: 9M8R1710											
U-234	2.40E-01	9.9E-02	1.1E-01	5.67E-02	pCi/g	87%	(4.2)	6/24/16 04:22 a		1.36	ALP3
U-235	9.13E-03	U	2.0E-02	2.0E-02	3.63E-02	pCi/g	1.00E+00	(4.5)		g	ALP3
U-238	2.32E-01	9.9E-02	1.1E-01	7.01E-02	pCi/g	87%	0.25	6/24/16 04:22 a		1.36	ALP3
						8.34E-03	1.00E+00	0.92		g	
						2.49E-02	1.00E+00	(3.3)	6/24/16 04:22 a		1.36
						2.92E-02	(4.3)			g	
Ratio U-234/238 = 1.0											

No. of Results: 19 Comments:

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA,Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-10
 Client Sample ID: J1V911

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Rep Date	Total Sa Size	Aliquot Size	Primary Detector
Ordered by Client Sample ID, Batch No.											
Batch: 6173019 AMERICIUM 241	GAMMA_GS -1.08E-02	U 2.0E-02	2.0E-02 Work Order: M8R181AC	3.35E-02 Action Lev	pCi/g 1.67E-02		Report DB ID: 9M8R1810 -0.32 -(1.1)	6/21/16 11:51 p		333.2	GER17\$1
CE-144	-3.92E-02	U 5.7E-02	5.7E-02	9.50E-02 Action Lev	pCi/g 4.69E-02		-0.41 -(1.4)	6/21/16 11:51 p		g	333.2
CO-60	1.03E-03	U 1.6E-02	1.6E-02	2.93E-02 Action Lev	pCi/g 1.47E-02		0.04 0.04	6/21/16 11:51 p		g	333.2
CS-134	3.81E-02	U 1.9E-02	1.9E-02	3.55E-02 Action Lev	pCi/g 1.77E-02		(1.1) (4.)	6/21/16 11:51 p		g	333.2
CS-137	7.52E-03	U 1.5E-02	1.5E-02	2.59E-02 Action Lev	pCi/g 1.30E-02		0.29 0.29	6/21/16 11:51 p		g	333.2
EU-152	1.06E-02	U 3.1E-02	3.1E-02	5.30E-02 Action Lev	pCi/g 2.65E-02		0.2 0.69	6/21/16 11:51 p		g	333.2
EU-154	1.81E-02	U 5.0E-02	5.0E-02	8.97E-02 Action Lev	pCi/g 4.50E-02		0.2 0.72	6/21/16 11:51 p		g	333.2
EU-155	4.46E-02	U 2.9E-02	2.9E-02	5.16E-02 Action Lev	pCi/g 2.57E-02		0.86 0.86	6/21/16 11:51 p		g	333.2
K-40	1.55E+01		1.8E+00	1.8E+00 Action Lev	pCi/g 2.48E-01		(3.1) (62.4)	6/21/16 11:51 p		g	333.2
RA-226	5.88E-01		9.6E-02	9.6E-02 Action Lev	pCi/g 4.47E-02		(16.9) (13.1)	6/21/16 11:51 p		g	333.2
					pCi/g 2.24E-02		(12.2)			g	

TestAmerica Inc MDL|MDA,I.c - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-10
 Client Sample ID: JV911

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Parameter	Result	Count	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector	Ordered by Client Sample ID, Batch No.
RA-228	8.52E-01	1.7E-01	1.7E-01	1.05E-01	pCi/g	(8.1)	6/21/16 11:51 p	333.2	GER17\$1	g	g	
RU-106	-4.60E-03	U	1.1E-01	1.1E-01	pCi/g	(9.8)	-0.02	6/21/16 11:51 p	333.2	GER17\$1	g	
SB-125	1.87E-02	U	3.2E-02	3.2E-02	pCi/g	9.30E-02	-0.09	6/21/16 11:51 p	333.2	GER17\$1	g	
U-235	5.58E-02	U	5.9E-02	5.9E-02	pCi/g	5.74E-02	0.33	6/21/16 11:51 p	333.2	GER17\$1	g	
U-238	7.11E-01	2.8E-01	2.8E-01	3.22E-01	pCi/g	2.87E-02	(1.2)	6/21/16 11:51 p	333.2	GER17\$1	g	
ZN-65	5.02E-03	U	3.8E-02	3.8E-02	pCi/g	1.03E-01	0.54	6/21/16 11:51 p	333.2	GER17\$1	g	
Batch: 6173020	UISOIE_PLATE_AEA	Work Order:	M8R181AA	Report DB ID:	9M8R1810							
U-234	2.51E-01	1.1E-01	1.2E-01	7.04E-02	pCi/g	2.39E-02	90%	(3.6)	6/24/16 04:22 a	1.24	ALP4	
U-235	1.85E-02	U	3.1E-02	3.1E-02	pCi/g	5.08E-02	1.00E+00	(4.3)	6/24/16 04:22 a	9	ALP4	
U-238	1.09E-01	7.3E-02	7.6E-02	6.83E-02	pCi/g	1.42E-02	90%	0.36	6/24/16 04:22 a	1.24	ALP4	
						2.29E-02	1.00E+00	(1.2)	6/24/16 04:22 a	9	ALP4	
								(1.6)	6/24/16 04:22 a	1.24	ALP4	
								(2.9)	6/24/16 04:22 a	9	ALP4	
No. of Results:	19	Comments:										Ratio U-234/238 = 2.3

TestAmerica Inc MDCLMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCLMDA,Mdl, Total Uncrt, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-11
 Client Sample ID: J1V912

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	Work Order:	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rstd/MDL, Rstd/TotUncert	Analysis, Prep Date	Ordered by Client Sample ID, Batch No.		
											Total Sa Size	Aliquot Size	Primary Detector
Batch: 673019 AMERICIUM 241	GAMMA_GS -9.22E-02	U	7.0E-02	7.0E-02	M8R191AC	1.10E-01	pCi/g	5.50E-02	-0.84 (-2.6)	6/22/16 08:00 a	356.5	g	GER7\$1
CE-144	8.12E-03	U	1.1E-01	1.1E-01	1.79E-01	1.79E-01	pCi/g	8.84E-02	0.05 0.15	6/22/16 08:00 a	356.5	g	GER7\$1
CO-60	-3.59E-03	U	2.4E-02	2.4E-02	4.14E-02	4.14E-02	pCi/g	2.08E-02	5.00E-02 -0.3	6/22/16 08:00 a	356.5	g	GER7\$1
CS-134	1.86E-02	U	2.6E-02	2.6E-02	4.52E-02	4.52E-02	pCi/g	2.25E-02	0.41 (1.4)	6/22/16 08:00 a	356.5	g	GER7\$1
CS-137	-7.22E-03	U	2.2E-02	2.2E-02	3.82E-02	3.82E-02	pCi/g	1.91E-02	1.00E-01 -0.65	6/22/16 08:00 a	356.5	g	GER7\$1
EU-152	2.96E-02	U	6.2E-02	6.2E-02	1.00E-01	1.00E-01	pCi/g	5.01E-02	1.00E-01 0.3	6/22/16 08:00 a	356.5	g	GER7\$1
EU-154	-3.70E-02	U	7.7E-02	7.7E-02	1.31E-01	1.31E-01	pCi/g	6.55E-02	1.00E-01 (1.5)	6/22/16 08:00 a	356.5	g	GER7\$1
EU-155	4.00E-02	U	5.4E-02	5.4E-02	9.28E-02	9.28E-02	pCi/g	4.64E-02	1.00E-01 (53.1)	6/22/16 08:00 a	356.5	g	GER7\$1
K-40	1.41E+01		1.9E+00	1.9E+00	2.66E-01	2.66E-01	pCi/g	1.34E-01 (14.7)	0.43 (10.3)	6/22/16 08:00 a	356.5	g	GER7\$1
RA-226	6.82E-01		1.3E-01	1.3E-01	6.59E-02	6.59E-02	pCi/g	3.30E-02 (10.7)	0.28 0.96 0.43 0.34E-01 0.134E-01	6/22/16 08:00 a	356.5	g	GER7\$1

TestAmerica Inc MDCLMDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCLMDA/MdL Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-11
 Client Sample ID: J1V912

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Parameter	Result	Count	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Ordered by Client Sample ID, Batch No.	
									Total Sa Size	Aliquot Size
RA-228	9.92E-01	2.2E-01	2.2E-01	1.34E-01	pCi/g	(7.4)	(9.1)	6/22/16 08:00 a	356.5	GER7\$1
RU-106	3.28E-02	U	1.9E-01	1.9E-01	pCi/g	6.70E-02	0.1	6/22/16 08:00 a	9	GER7\$1
SB-125	2.37E-02	U	5.2E-02	5.2E-02	pCi/g	3.26E-01	1.62E-01	0.35	356.5	GER7\$1
U-235	2.78E-03	U	1.1E-01	1.1E-01	pCi/g	9.11E-02	4.54E-02	0.26	6/22/16 08:00 a	9
U-238	2.80E-01	U	6.7E-01	6.7E-01	pCi/g	9.06E-02	1.00E+00	0.05	6/22/16 08:00 a	356.5
ZN-65	-5.76E-02	U	6.8E-02	6.8E-02	pCi/g	1.10E+00	5.49E-01	0.25	6/22/16 08:00 a	9
						8.98E-02	4.43E-02	0.84		356.5
								-0.64	6/22/16 08:00 a	9
								-(-1.7)		9
Batch: 6173020	UISO_1E_PLATE_AEA		Work Order: M8R191AA		Report DB ID: 9M8R1910					
U-234	2.40E-01	1.1E-01	1.2E-01	5.92E-02	pCi/g	85%	(4.1)	6/24/16 04:23 a	1.04	ALP6
U-235	2.30E-02	U	3.5E-02	3.5E-02	pCi/g	1.72E-02	1.00E+00	(4.1)	9	ALP6
U-238	1.88E-01	9.8E-02	1.0E-01	4.74E-02	pCi/g	85%	0.49	6/24/16 04:23 a	1.04	ALP6
				6.61E-02	pCi/g	1.15E-02	1.00E+00	(1.3)	9	
						2.06E-02	1.00E+00	(2.8)	1.04	ALP6
								(3.6)	9	

Ratio U-234/238 = 1.3

No. of Results: 19 Comments:

TestAmerica Inc MDCLMDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCLMDA/Mdl, Total Uncrt, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-12
 Client Sample ID: JV913

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Matrix: SOIL

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6173019 AMERICIUM 241	GAMMA_GS -3.89E-02	U	8.2E-02	8.2E-02	1.35E-01	pCi/g 6.77E-02	-0.29	6/22/16 08:22 a	377.2	GER10\$1		
CE-144	-6.84E-02	U	1.1E-01	1.1E-01	1.88E-01	pCi/g 9.25E-02	-0.94 (-1.2)	6/22/16 08:22 a	g 377.2	GER10\$1		
CO-60	6.45E-04	U	1.6E-02	1.6E-02	2.87E-02	pCi/g 1.44E-02	-0.36 0.02	6/22/16 08:22 a	g 377.2	GER10\$1		
CS-134	2.76E-02	U	1.9E-02	1.9E-02	3.52E-02	pCi/g 2.96E-02	0.08 0.02	6/22/16 08:22 a 6/22/16 08:22 a	g 377.2	GER10\$1		
CS-137	6.87E-04	U	1.7E-02	1.7E-02	1.48E-02	pCi/g 8.07E-02	0.78 0.08	(2.8) 6/22/16 08:22 a	g 377.2	GER10\$1		
EU-152	9.20E-03	U	1.2E-01	1.2E-01	8.07E-02	pCi/g 4.04E-02	0.11 0.15	6/22/16 08:22 a 6/22/16 08:22 a	g 377.2	GER10\$1		
EU-154	-7.97E-02	U	5.4E-02	5.4E-02	8.24E-02	pCi/g 9.92E-02	-0.97 1.00E-01	6/22/16 08:22 a (-3.)	g 377.2	GER10\$1		
EU-155	1.13E-02	U	5.8E-02	5.8E-02	4.13E-02	pCi/g 4.95E-02	0.11	6/22/16 08:22 a	g 377.2	GER10\$1		
K-40	1.38E+01		1.7E+00	1.7E+00	2.38E-01	pCi/g 1.19E-01	0.39 (58.3)	6/22/16 08:22 a (16.)	g 377.2	GER10\$1		
RA-226	5.55E-01		8.7E-02	8.7E-02	5.79E-02	pCi/g 2.90E-02	(9.6) (12.8)	6/22/16 08:22 a 6/22/16 08:22 a	g 377.2	GER10\$1		

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA|MDI, Total Uncrt, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-12
 Client Sample ID: J1V913

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Collection Date: 6/16/2016 8:49:00 AM
 Received Date: 6/20/2016 3:45:00 PM

Matrix: SOIL

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RA-228	7.59E-01	1.5E-01	1.5E-01	1.09E-01	pCi/g	(7.)	6/22/16 08:22 a	(10.1)	377.2	g	GER10\$1
RU-106	3.09E-02	U	1.4E-01	1.4E-01	pCi/g	5.44E-02	6/22/16 08:22 a	0.13	377.2	g	GER10\$1
SB-125	5.09E-03	U	4.3E-02	4.3E-02	pCi/g	1.18E-01	6/22/16 08:22 a	0.45	377.2	g	GER10\$1
U-235	-5.34E-02	U	1.1E-01	1.1E-01	pCi/g	3.64E-02	6/22/16 08:22 a	0.07	377.2	g	GER10\$1
U-238	5.43E-02	U	7.1E-01	7.1E-01	pCi/g	9.27E-02	6/22/16 08:22 a	0.24	377.2	g	GER10\$1
ZN-65	3.47E-04	U	4.7E-02	4.7E-02	pCi/g	1.18E+00	6/22/16 08:22 a	-0.29	377.2	g	GER10\$1
Batch: 6173020 UISOIE_PLATE_AEA Work Order: M8R2A1AA Report DB ID: 9M8R2A10											
U-234	1.94E-01	1.1E-01	1.1E-01	8.78E-02	pCi/g	88%	(2.2)	6/24/16 04:24 a	1.0	ALP9	
U-235	1.70E-02	U	3.8E-02	3.8E-02	pCi/g	3.03E-02	1.00E+00	(3.5)	g	ALP9	
U-238	2.24E-01	1.5E-01	1.5E-01	2.33E-02	pCi/g	88%	0.23	6/24/16 04:24 a	1.0	ALP9	
				1.97E-01	pCi/g	88%	(1.1)	6/24/16 04:24 a	g	ALP9	
				8.48E-02	pCi/g	88%	(3.)	6/24/16 04:24 a	1.0	ALP9	
				3.33E-02	pCi/g	0.01	0.01	6/22/16 08:22 a	377.2	g	
Ratio U-234/238 = 0.9											

No. of Results: 19 Comments:

TestAmerica Inc MDCL/MDA, Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDCL/MDA/Mdl, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-13
 Client Sample ID: J1V914

SDG: JP1047
 Report No. : 68828
 COC No. : RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	Work Order: M8R2C1A/C	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rsf/MDL, Rst/TotCert	Analysis, Rep Date	Total Sa Size	Aliquot Size	Ordered by Client Sample ID, Batch No.	Primary Detector
Batch: 6173019 AMERICIUM 241	GAMMA_GS -5.47E-02	U	9.8E-02	9.8E-02	1.65E-01	pCi/g	8.25E-02	-0.33 (-1.1)	6/22/16 08:24 a	377.2	g	GER11\$1	
CE-144	2.81E-02	U	7.0E-02	7.0E-02	1.23E-01	pCi/g	0.23	6/22/16 08:24 a	377.2	g	GER11\$1		
CO-60	-1.26E-02	U	1.4E-02	1.4E-02	2.23E-02	pCi/g	6.05E-02	0.8	6/22/16 08:24 a	377.2	g	GER11\$1	
CS-134	2.58E-02	U	1.5E-02	1.5E-02	2.90E-02	pCi/g	1.12E-02	5.00E-02 (-1.8)	6/22/16 08:24 a	377.2	g	GER11\$1	
CS-137	8.89E-03	U	1.3E-02	1.3E-02	2.37E-02	pCi/g	1.44E-02	(3.3)	6/22/16 08:24 a	377.2	g	GER11\$1	
EU-152	8.29E-04	U	3.5E-02	3.5E-02	5.87E-02	pCi/g	1.18E-02	1.00E-01 (1.3)	6/22/16 08:24 a	377.2	g	GER11\$1	
EU-154	-3.10E-02	U	4.3E-02	4.3E-02	7.03E-02	pCi/g	2.94E-02	1.00E-01 (-1.4)	6/22/16 08:24 a	377.2	g	GER11\$1	
EU-155	3.45E-02	U	4.0E-02	4.0E-02	6.82E-02	pCi/g	3.52E-02	1.00E-01 (1.7)	6/22/16 08:24 a	377.2	g	GER11\$1	
K-40	1.37E+01		1.7E+00	1.7E+00	1.96E-01	pCi/g	3.40E-02	1.00E-01 (69.7)	6/22/16 08:24 a	377.2	g	GER11\$1	
RA-226	5.43E-01		8.2E-02	8.2E-02	4.11E-02	pCi/g	9.88E-02 2.06E-02	(13.2) (13.2)	6/22/16 08:24 a	377.2	g	GER11\$1	

FORM I
SAMPLE RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Lot-Sample No.: J6F200410-13
 Client Sample ID: J1V914

SDG: JP1047
 Report No.: 68828
 COC No.: RC-148-224

Parameter	Result	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, Lc	Yield CRDL(RL)	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector		
RA-228	8.22E-01	1.4E-01	1.4E-01	7.47E-02	pCi/g	(11.)	6/22/16 08:24 a	(11.)	377.2	g	GER11\$1		
RU-106	-3.46E-02	U	9.8E-02	9.8E-02	1.68E-01	3.74E-02	(11.4)	-0.21	6/22/16 08:24 a	377.2	g	GER11\$1	
SB-125	1.62E-02	U	2.9E-02	2.9E-02	5.24E-02	pCi/g	8.31E-02	-0.7	6/22/16 08:24 a	377.2	g	GER11\$1	
U-235	4.91E-02	U	7.0E-02	7.0E-02	1.23E-01	pCi/g	2.62E-02	0.31	6/22/16 08:24 a	377.2	g	GER11\$1	
U-238	6.01E-02	U	7.6E-01	7.6E-01	1.32E+00	pCi/g	6.17E-02	1.00E+00	(1.4)	6/22/16 08:24 a	377.2	g	GER11\$1
ZN-65	2.81E-02	U	3.3E-02	3.3E-02	5.31E-02	pCi/g	6.58E-01	0.05	6/22/16 08:24 a	377.2	g	GER11\$1	
Batch: 6173020	UISO_1E_PLATE_AEA		Work Order: M8R2C1AA		Report DB ID: 9M8R2C10								
U-234	1.71E-01	1.0E-01	1.0E-01	9.75E-02	pCi/g	90%	(1.7)	6/24/16 04:24 a			ALP12		
U-235	5.48E-03	U	3.6E-02	3.6E-02	8.61E-02	pCi/g	3.60E-02	1.00E+00	(3.3)	6/24/16 04:24 a	g	ALP12	
U-238	2.21E-01	U	1.6E-01	1.7E-01	2.40E-01	pCi/g	3.03E-02	1.00E+00	0.31	6/24/16 04:24 a	g	ALP12	
							1.07E-01	1.00E+00	(2.6)			1.02	
												g	
No. of Results:	19	Comments:											

Ratio U-234/238 = 0.8

TestAmerica Inc MDL|MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchSample U Qual - Analyzed for but not detected above limiting criteria, MDL|MDA|MDL, Total Uncert, RDL or not identified by gamma scan software.
 V5.5.1 A2002

FORM II

Date: 24-Jun-16

DUPLICATE RESULTS

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-1
Client Sample ID: J1V902 DUP

Parameter	Result, Orig Rst	Count Qual	Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6173019	GAMMA_GS			Work Order: M8R1X1AD	Report DB ID: M8R1X1DR	Orig Sa DB ID: 9M8R1X10						
AMERICIUM241	2.06E-03	U	1.8E-02	1.8E-02	3.07E-02	pCi/g	0.07	6/22/16 07:59 a		371.0	g	GER17\$1
	-1.27E-02	U	RPD -277.7	5.3E-02	8.98E-02	pCi/g	0.23					
CE-144	-1.99E-02	U					-0.22	6/22/16 07:59 a		371.0	g	GER17\$1
	1.26E-02	U	RPD -882.1	1.3E-02	2.16E-02	pCi/g	-0.75					
CO-60	-1.16E-02	U					-0.54	6/22/16 07:59 a		371.0	g	GER17\$1
	-8.16E-03	U	RPD -34.7	2.6E-02	5.00E-02		(-1.7)					
CS-134	6.22E-02	U					0.75	6/22/16 07:59 a		371.0	g	GER17\$1
	2.64E-02	U	RPD 80.8	1.3E-02	2.29E-02	pCi/g	(2.)					
CS-137	4.35E-03	U					(4.7)			371.0	g	GER17\$1
	8.68E-04	U	RPD 133.5	2.8E-02	4.61E-02	pCi/g	0.19	6/22/16 07:59 a		371.0	g	GER17\$1
EU-152	-8.52E-03	U					0.68					
	3.31E-03	U	RPD -454.0	4.9E-02	8.40E-02	pCi/g	-0.18	6/22/16 07:59 a		371.0	g	GER17\$1
EU-154	-1.62E-02	U					-0.62					
	3.08E-03	U	RPD -294.1	2.7E-02	4.64E-02	pCi/g	-0.19	6/22/16 07:59 a		371.0	g	GER17\$1
EU-155	2.26E-02	U					-0.66					
	3.71E-02	U	RPD 48.6	1.7E+00	2.04E-01	pCi/g	0.49	6/22/16 07:59 a		371.0	g	GER17\$1
K-40	1.47E+01						(1.6)					
	1.38E+01		RPD 6.5	9.2E-02	4.12E-02	pCi/g	(71.9)	6/22/16 07:59 a		371.0	g	GER17\$1
RA-226	5.59E-01						(17.)					
	4.75E-01		RPD 16.1	1.6E-01	8.85E-02	pCi/g	(13.5)	6/22/16 07:59 a		371.0	g	GER17\$1
RA-228	7.58E-01						(12.2)					
	8.32E-01		RPD 9.3	1.6E-01	(8.6)		(8.6)	6/22/16 07:59 a		371.0	g	GER17\$1
							(9.7)					

TestAmerica Inc RPD = Relative Percent Difference.
 rptSTLRchDupV5. MDCL/MDA,Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 5.1 A2002 U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/MDL, Total Uncert, RDL or not identified by gamma scan software.

FORM II

Date: 24-Jun-16

DUPLICATE RESULTS

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-1
Client Sample ID: J1V902 DUP

Parameter	Result, Orig Rst	Count (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
RU-106	3.04E-02	U	1.0E-01	1.0E-01	1.81E-01	pCi/g	0.17	6/22/16 07:59 a		371.0	GER17\$1
	-5.71E-02	U	RPD -656.0				0.6			g	
SB-125	6.70E-03	U	2.7E-02	2.7E-02	4.74E-02	pCi/g	0.14	6/22/16 07:59 a		371.0	GER17\$1
	2.50E-03	U	RPD 91.4				0.5			g	
U-235	2.12E-02	U	5.7E-02	5.7E-02	9.80E-02	pCi/g	0.22	6/22/16 07:59 a		371.0	GER17\$1
	4.65E-02	U	RPD 74.8		1.00E+00		0.75			g	
U-238	6.16E-01	U	2.7E-01	2.7E-01	3.02E-01	pCi/g	(2.)	6/22/16 07:59 a		371.0	GER17\$1
	7.70E-01	U	RPD 22.2				(4.6)			g	
ZN-65	7.69E-03	U	3.7E-02	3.7E-02	5.72E-02	pCi/g	0.13	6/22/16 07:59 a		371.0	GER17\$1
	5.45E-03	U	RPD 34.1				0.41			g	

No. of Results: 16 Comments:

FORM II

Date: 24-Jun-16

DUPLICATE RESULTS

Lab Name: TestAmerica Inc
Lot-Sample No.: J6F200410-2
Client Sample ID: J1V903 DUP

Parameter	Result, Orig Rst	Count Error (2 s)	CSU (2 s)	MDL, Action Lev	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6173020 UISO_JE_PLATE_AEA											
U-234	1.53E-01	1.0E-01	8.86E-02	pCi/g	77%	(1.7)	6/23/16 02:03 p			1.06	ALP4
	2.44E-01	RPD 45.9	1.00E+00		(2.9)					g	
U-235	2.66E-02	U	4.3E-02	6.59E-02	pCi/g	77%	0.4	6/23/16 02:03 p		1.06	ALP4
	2.60E-02	U	RPD 2.3	1.00E+00		(1.2)				g	
U-238	1.52E-01	1.0E-01	8.97E-02	pCi/g	77%	(1.7)	6/23/16 02:03 p			1.06	ALP4
	2.40E-01	RPD 44.5	1.00E+00		(2.9)					g	
<i>Ratio U-234/U-238 = 1.0</i>											
<i>Alpha Spec Result Sum = 3.3E-01</i>											

No. of Results: 3 Comments:

FORM II
BLANK RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
Matrix: SOIL

SDG: JP1047
Report No.: 68828

Parameter	Result	Qual	Count (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncert	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
Batch: 6173020 UISO_IE_PLATE_AEA												
U-234	-3.72E-03	U	2.3E-02	2.3E-02	5.36E-02	pCi/g	91%	-0.07	6/24/16 04:25 a	1.13	g	ALP222
U-235	1.07E-02	U	2.3E-02	2.3E-02	4.26E-02	1.00E+00	-0.32	6/24/16 04:25 a	1.13	g	ALP222	
U-238	-5.58E-03	U	2.3E-02	2.4E-02	9.76E-03	1.00E+00	0.92	6/24/16 04:25 a	1.13	g	ALP222	
					5.86E-02	pCi/g	91%	-0.1	6/24/16 04:25 a	1.13	g	
					1.75E-02	1.00E+00	-0.48					
<i>Ratio U-234/U-238 = 0.7</i>												
Batch: 6173019 GAMMA_GS												
AMERICIUM 241	-4.33E-04	U	8.0E-03	8.0E-03	1.37E-02	pCi/g	-0.03	6/22/16 08:24 a	348.0	g	GER16\$1	
CE-144	5.98E-03	U	2.3E-02	2.3E-02	4.08E-02	pCi/g	-0.11	6/22/16 08:24 a	348.0	g	GER16\$1	
CO-60	-5.56E-03	U	7.6E-03	7.6E-03	2.04E-02	pCi/g	0.15	6/22/16 08:24 a	348.0	g	GER16\$1	
CS-134	1.15E-02	U	9.5E-03	9.5E-03	1.26E-02	pCi/g	0.52	6/22/16 08:24 a	348.0	g	GER16\$1	
CS-137	1.72E-03	U	7.1E-03	7.1E-03	6.40E-03	5.00E-02	-0.44 (-1.5)	6/22/16 08:24 a	348.0	g	GER16\$1	
EU-152	-1.03E-02	U	1.5E-02	1.5E-02	1.91E-02	pCi/g	0.6	6/22/16 08:24 a	348.0	g	GER16\$1	
EU-154	9.44E-03	U	2.1E-02	2.1E-02	9.58E-03	(2.4)	0.13	6/22/16 08:24 a	348.0	g	GER16\$1	
EU-155	3.99E-04	U	1.1E-02	1.1E-02	1.33E-02	pCi/g	0.48	6/22/16 08:24 a	348.0	g	GER16\$1	
					6.70E-03	1.00E-01	-0.42	6/22/16 08:24 a	348.0	g	GER16\$1	
					2.45E-02	pCi/g	(-1.4)	6/22/16 08:24 a	348.0	g	GER16\$1	
					4.39E-02	pCi/g	0.21	6/22/16 08:24 a	348.0	g	GER16\$1	
					1.23E-02	1.00E-01	0.89	6/22/16 08:24 a	348.0	g	GER16\$1	
					2.22E-02	1.00E-01	0.02	6/22/16 08:24 a	348.0	g		
					1.87E-02	pCi/g	0.08					
					9.35E-03	1.00E-01						

TestAmerica Inc MDC|MDA_Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
rpSTL|RchBlank U Qual - Analyzed for but not detected above limiting criteria, Mdc/Mda/MDL, Total Uncert, RDL or not identified by gamma scan software.
V5.5.1 A2002

FORM II
BLANK RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Matrix: SOIL

SDG: JP1047
 Report No.: 68828

Parameter	Result	Qual	Count Error (2 s)	CSU (2 s)	MDL, Lc	Rpt Unit, CRDL	Yield	Rst/MDL, Rst/TotUncrt	Analysis, Prep Date	Total Sa Size	Aliquot Size	Primary Detector
K-40	-3.85E-02	U	1.2E-01	1.2E-01	2.26E-01	pCi/g	1.14E-01	-0.17	6/22/16 08:24 a	348.0	GER16\$1	
RA-226	6.41E-02	U	3.5E-02	3.5E-02	4.58E-02	pCi/g	2.30E-02	-0.65 (1.4) (3.7)	6/22/16 08:24 a	348.0	GER16\$1	
RA-228	3.14E-02	U	3.1E-02	3.1E-02	6.34E-02	pCi/g	0.5	6/22/16 08:24 a	348.0	GER16\$1		
RU-106	-3.13E-02	U	5.7E-02	5.7E-02	9.77E-02	pCi/g	3.19E-02	(2.)	6/22/16 08:24 a	348.0	GER16\$1	
SB-125	6.26E-03	U	1.5E-02	1.5E-02	4.91E-02	pCi/g	2.83E-02	-0.32 (-1.1)	6/22/16 08:24 a	348.0	GER16\$1	
U-235	1.50E-03	U	2.8E-02	2.8E-02	1.42E-02	pCi/g	4.59E-02	0.22 0.84	6/22/16 08:24 a	348.0	GER16\$1	
U-238	1.60E-01		1.7E-01	1.7E-01	2.30E-02	1.00E+00	0.03	0.03	6/22/16 08:24 a	348.0	GER16\$1	
Zn-65	-2.23E-02	U	2.0E-02	2.0E-02	6.61E-02	pCi/g	3.09E-02	-0.72 (-2.2)	6/22/16 08:24 a	348.0	GER16\$1	
					1.56E-02					g		

No. of Results: 19 Comments:

TestAmerica Inc MDC|MDA|Lc - Detection, Decision Level based on instrument background or blank, adjusted by the sample Efficiency, Yield, and Volume.
 rptSTLRchBlank U Qual - Analyzed for but not detected above Limiting criteria, Mdc/Mda/Mdl, Total Uncrt, RDL or not identified by gamma scan software.
 V5.1 A2002

FORM II
LCS RESULTS

Date: 24-Jun-16

Lab Name: TestAmerica Inc
 Matrix: SOIL

SDG: JP1047
 Report No.: 68828

Parameter	Result	Count Error (2 s)	CSU (2 s)	Report Unit	Yield	Expected Uncert	Recovery, Bias	Analysis, Prep Date	Aliquot Size	Primary Detector
Batch: 6173020	UISO_1E_PLATE_AEA		Work Order: M8R221AC	Report DB ID: M8R221CS						
U-234	2.89E+00	4.4E-01	6.9E-01	6.26E-02 pCi/g	79%	3.20E+00 1.7E-02	90%	6/24/16 04:26 a	1.02	ALP225
U-238	3.50E+00	4.9E-01	8.1E-01	7.20E-02 pCi/g	79%	3.35E+00 1.8E-02	105%	6/24/16 04:26 a	1.02	ALP225
Batch: 6173019	GAMMA_GS		Work Order: M8R211AC	Report DB ID: M8R211CS						
CS-137	9.70E-01	1.3E-01	1.3E-01	2.58E-02 pCi/g	Rec Limits:	9.62E-01 9.9E-03	101%	6/22/16 08:27 a	350.1	GER19\$1
RA-226	9.33E-01	1.4E-01	1.4E-01	3.77E-02 pCi/g	Rec Limits:	70 130	0.0		g	
RA-228	4.77E-01	1.1E-01	1.1E-01	8.69E-02 pCi/g	Rec Limits:	1.14E+00 1.2E-02	82%	6/22/16 08:27 a	350.1	GER19\$1
U-238	9.15E-01	1.2E-01	1.2E-01	4.02E-02 pCi/g	Rec Limits:	5.01E-01 5.2E-03	95%	6/22/16 08:27 a	350.1	GER19\$1
					Rec Limits:	70 130	0.0		g	
No. of Results: 6	Comments:									

Lot No., Due Date: J6F200410; 06/27/2016
 Client, Site: 127642; S00W235B00 HANFORD
 QC Batch No., Method Test: 6173020; RUISO UIso by ALP
 SDG, Matrix: JP1047; SOIL

1.0 COC

1.1 Is the ICO page complete; includes all applicable analysis, dates, SOP numbers, and revisions?

Yes No N/A



2.0 QC Batch

2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet?

Yes No N/A



2.2 Are the QC appropriate for the analysis included in the batch?

Yes No N/A



2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc?

Yes No N/A



2.4 Does the Worksheets include a Tracer Vial label for each sample?

Yes No N/A



3.0 QC & Samples

3.1 Is the blank results, yield, and MDA within contract limits?

Yes No N/A



3.2 Is the LCS result, yield, and MDA within contract limits?

Yes No N/A



3.3 Are the MS/MSD results, yields, and MDA within contract limits?

Yes No N/A



3.4 Are the duplicate result, yields, and MDAs within contract limits?

Yes No N/A



3.5 Are the sample yields and MDAs within contract limits?

Yes No N/A



4.0 Raw Data

4.1 Were results calculated in the correct units?

Yes No N/A



4.2 Were analysis volumes entered correctly?

Yes No N/A



4.3 Were Yields entered correctly?

Yes No N/A



4.4 Were spectra reviewed/meet contractual requirements?

Yes No N/A



4.5 Were raw counts reviewed for anomalies?

Yes No N/A



5.0 Other

5.1 Are all nonconformances included and noted?

Yes No N/A



5.2 Are all required forms filled out?

Yes No N/A



5.3 Was the correct methodology used?

Yes No N/A



5.4 Was transcription checked?

Yes No N/A



5.5 Were all calculations checked at a minimum frequency?

Yes No N/A



5.6 Are worksheet entries complete and correct?

Yes No N/A



6.0 Comments on any No response:

First Level

Date

TestAmerica Richland
QAS_RADCALcv4.9.4

Page 1

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 1017-3020

Review Item	Yes (✓)	No (✗)	NA (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?	✓		
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓		
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result \leq the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity \leq the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response:

CRDLC = 1.0 pc/s

Second Level Review: Ronald J. G. Date: 4/24/16

Lot No., Due Date: J6F200410; 06/27/2016
 Client, Site: 127642; S00W235B00 HANFORD
 QC Batch No., Method Test: 6173019; RGAMMA Gamma by GER
 SDG, Matrix: JP1047; SOIL

1.0 COC

1.1 Is the ICOC page complete; includes all applicable analysis, dates, SOP numbers, and revisions? Yes No N/A

2.0 QC Batch

- 2.1 Do the Summary/Detailed Reports include a calculated result for each sample listed on the QC Batch Sheet? Yes No N/A
- 2.2 Are the QC appropriate for the analysis included in the batch? Yes No N/A
- 2.3 Is the Analytical Batch Worksheet complete; includes as appropriate, volumes, count times, etc? Yes No N/A
- 2.4 Does the Worksheets include a Tracer Vial label for each sample? Yes No N/A

3.0 QC & Samples

- 3.1 Is the blank results, yield, and MDA within contract limits? Yes No N/A
- 3.2 Is the LCS result, yield, and MDA within contract limits? Yes No N/A
- 3.3 Are the MS/MSD results, yields, and MDA within contract limits? Yes No N/A
- 3.4 Are the duplicate result, yields, and MDAs within contract limits? Yes No N/A
- 3.5 Are the sample yields and MDAs within contract limits? Yes No N/A

4.0 Raw Data

- 4.1 Were results calculated in the correct units? Yes No N/A
- 4.2 Were analysis volumes entered correctly? Yes No N/A
- 4.3 Were Yields entered correctly? Yes No N/A
- 4.4 Were spectra reviewed/meet contractual requirements? Yes No N/A
- 4.5 Were raw counts reviewed for anomalies? Yes No N/A

5.0 Other

- 5.1 Are all nonconformances included and noted? Yes No N/A
- 5.2 Are all required forms filled out? Yes No N/A
- 5.3 Was the correct methodology used? Yes No N/A
- 5.4 Was transcription checked? Yes No N/A
- 5.5 Were all calculations checked at a minimum frequency? Yes No N/A
- 5.6 Are worksheet entries complete and correct? Yes No N/A
- 6.0 Comments on any No response:

First Level Jodee Date 6/23/16
 TestAmerica Richland
 QAS_RADCALCV4.9.4

Data Review Checklist
RADIOCHEMISTRY
Second Level Review

Batch Number: 6017-3019

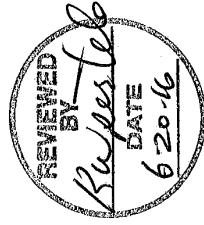
Review Item	Yes (✓)	No (✗)	NA (✗)
A. Sample Analysis			
1. Are the sample yields within acceptance criteria?			✓
2. Is the sample Minimum Detectable Activity < the Contract Detection Limit?	✓	✓	
3. Are the correct isotopes reported?	✓		
B. QC Samples			
1. Is the Minimum Detectable Activity for the blank result \leq the Contract Detection Limit?	✓		
2. Does the blank result meet the Contract criteria?	✓		
3. Is the blank result < the Contract Detection Limit?	✓		
4. Is the blank result > the Contract Detection Limit but the sample result < the Contract Detection Limit?			✓
5. Is the LCS recovery within contract acceptance criteria?	✓		
6. Is the LCS Minimum Detectable Activity \leq the Contract Detection Limit?	✓		
7. Do the MS/MSD results and yields meet acceptance criteria?			✓
8. Do the duplicate sample results and yields meet acceptance criteria?	✓		
C. Other			
1. Are all Nonconformances (NCM) included and noted?			✓
2. Was the correct methodology used?	✓		
3. Were units checked?	✓		

Comments on any "No" response:

Second Level Review:

Date: 6/21/16

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-148-224	Page 1 of 3
Collector ETHERINGTON, TW	Company Contact Joan Kessner	Telephone No. 375-4683	Project Coordinator KESSNER, JH	Price Code 8B	Data Turnaround 7 DA/Y
Project Designation 300 Area D4 Waste Sites	Sampling Location 300-288;2 WSA1		SAF No. RC-148		
Ice Chest No. <i>ERC-02-007</i>	Field Logbook No. EL-163-08	COA # <i>TRK 6-20-16</i> 032882000		Method of Shipment Local Delivery	
Shipped To TestAmerica Richland	Offsite Property No. <i>N/A</i>			Bill of Lading/Air Bill No. <i>N/A</i>	
Other Labs Shipped To TestAmerica Denver		Preservation None	None		
		Type of Container G/P	G/P		
	No. of Container(s)	1	1		
POSSIBLE SAMPLE HAZARDS/REMARKS		Volume 1000mL	60mL		
Special Handling and/or Storage Cool as required for preservation		Sample Analysis See item (2) in Special Instructions	Isotopic Uranium		
Sample No.	Matrix	Sample Date <i>6-16-16</i>	Sample Time <i>0740</i>		
JIV902 M 8Q14	SOIL	<i>6-16-16</i>	<i>0815</i>	<i>✓</i>	
JIV903 M 8P10	SOIL	<i>6-16-16</i>	<i>0755</i>	<i>✓</i>	
JIV904 M 8Q11	SOIL	<i>6-16-16</i>	<i>0835</i>	<i>✓</i>	
JIV905 M 8Q12	SOIL	<i>6-16-16</i>	<i>0825</i>	<i>✓</i>	
JIV906 M 8Q13	SOIL	<i>6-16-16</i>	<i>0825</i>	<i>✓</i>	
				SPECIAL INSTRUCTIONS	
				(2) Gamma Spec (Client List) {Americium-241, Antimony-125, Cerium-134, Cesium-137, Cobalt-60, Europium-152, Europium-154, Europium-155, Radium-226, Radium-228, Ruthenium-106, Uranium-235, Uranium-238, Zinc-65}	
CHAIN OF POSSESSION					
Reinquished By/Removed From <i>T. Etherington</i>	Date/Time <i>6-16-16 1410</i>	Received By/Stored In <i>J.R. Gammerson</i>	Date/Time <i>6-16-16 1410</i>		
Reinquished By/Removed From <i>J.R. Gammerson</i>	Date/Time <i>6-16-16 1530</i>	Received By/Stored In <i>J.R. Gammerson</i>	Date/Time <i>6-16-16 1530</i>		
Reinquished By/Removed From <i>T.R. Gammerson</i>	Date/Time <i>6-20-16 1030</i>	Received By/Stored In <i>T.R. Gammerson</i>	Date/Time <i>6-20-16 1030</i>		
Reinquished By/Removed From <i>T.R. Gammerson</i>	Date/Time <i>6-20-16 1545</i>	Received By/Stored In <i>J. Back</i>	Date/Time <i>6-20-16 1545</i>		
Reinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
Reinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time		
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time		

JP1047**J6F200410**

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-148-224	Page 3 of 3
Collector ETHERINGTON, TW	Company Contact Joan Kessner	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code 8B	Data Turnaround 7 DAY
Project Designation 300 Area D4 Waste Sites	Sampling Location 300-288-2 WSA1		SAF No. RC-148		
Ice Chest No. <i>ER C-02-007</i>	Field Logbook No. EL-163-08	COA # <i>TRZ 6-20-16</i> 032882000	Method of Shipment Local Delivery		
Shipped To TestAmerica Richland	Offsite Property No. <i>N/A</i>	Bill of Lading/Air Bill No. <i>N/A</i>			
Other Labs Shipped To TestAmerica Denver	Preservation	None	None		
	Type of Container	GIP	GIP		
	No. of Container(s)	1	1		
POSSIBLE SAMPLE HAZARDS/REMARKS		Volume	1000mL	60mL	
Special Handling and/or Storage Cool as required for preservation		Sample Analysis	See item (2) in Special Instructions	Isotopic Uranium	
Sample No.	Matrix	Sample Date	Sample Time		
JIV912 M8R19	SOIL	6-16-16	0926	✓	
JIV913 M8R20	SOIL	6-16-16	0849	✓	
JIV914 M8R20	SOIL	6-16-16	0740	✓	
SPECIAL INSTRUCTIONS					
(2) Gamma Spec (Client List) {Americium-241, Antimony-144, Cerium-144, Cerium-134, Cobalt-60, Europium-152, Europium-154, Europium-155, Radium-226, Radium-228, Ruthenium-106, Uranium-235, Uranium-238, Zinc-65}					
CHAIN OF POSSESSION					
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1410</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1410</i>	Sign/Print Names <i>T. Etherington TW</i>	
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1500</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1500</i>	Sign/Print Names <i>T. Etherington TW</i>	
Relinquished By/Removed From <i>1060#1 6-20-16 1030</i>	Date/Time <i>6-20-16 1030</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-20-16 1030</i>	Sign/Print Names <i>T. Etherington TW</i>	
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-20-16 1515</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-20-16 1515</i>	Sign/Print Names <i>T. Etherington TW</i>	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Sign/Print Names	
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time	Sign/Print Names	
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time		



JP1047

Sample Check-in List

Date/Time Received: 6-20-14 / 1545 Container GM Screen Result: (Airlock) O cpm Initials B]
 Sample GM Screen Result (Sample Receiving) O cpm Initials B]

Client: WCH SDG #: JPI04n SAF #: Rc-148 NA []

Lot Number: JL f 200410

Chain of Custody # Rc-148-224

Shipping Container ID or Air Bill Number : _____ NA B]

Samples received inside shipping container/cooler/box Yes Continue with 1 through 4. Initial appropriate response.
 No Go to 5, add comment to #16.

- | | | | |
|--|------------------------------|------------------------------|---|
| 1. Custody Seals on shipping container intact? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No Custody Seal <input checked="" type="checkbox"/>] |
| 2. Custody Seals dated and signed? | Yes <input type="checkbox"/> | No <input type="checkbox"/> | No Custody Seal <input checked="" type="checkbox"/>] |
| 3. Cooler temperature: | _____ °C NA <u>B</u>] | | |
| 4. Vermiculite/packing materials is | NA <u>B</u>] | Wet <input type="checkbox"/> | Dry <input type="checkbox"/> |

Item 5 through 16 for samples. Initial appropriate response.

5. Chain of Custody record present? Yes B] No
 6. Number of samples received (Each sample may contain multiple bottles): 13
 7. Containers received: 13x60mL, 13x4p

8. Sample holding times exceeded? NA Yes No B]
 9. Samples have: _____ tape _____ hazard labels B custody seals B appropriate sample labels

10. Matrix: B A (FLT, Wipe, Solid, Soil) I (Water) S (Air, Niosh 7400) T (Biological, Ni-63)

11. Samples: B are in good condition _____ are leaking _____ are broken
B have air bubbles (Only for samples requiring no head space) _____ Other _____

12. Sample pH appropriate for analysis requested Yes No NA B]
 (If acidification is necessary go to pH area & document sample ID, initial pH, amount of HNO₃ added and pH after addition on table)

13. Were any anomalies identified in sample receipt? Yes No B]

14. Description of anomalies (include sample numbers): NA B]

15. Sample Location, Sample Collector Listed on COC? * Yes B] No
 *For documentation only. No corrective action needed.

16. Additional Information: VPA

[] Client/Courier denied temperature check. B] Client/Courier unpack cooler.

Sample Check-in List completed by Sample Custodian:

Signature: Jane Beck Date: 6-20-14

Client Notification needed? Yes No Date: _____

By: _____

Person contacted: _____

No action necessary; process as is

Project Manager Shondell Johnson

Date 6/21/15 16

2016/06/21/15

Sample Preparation/Analysis										Balance Id:1120373922,	
7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP15) SR Uranium-234,235,238 by Alpha Spec										Pipet #: _____	
5I CLIENT: HANFORD										Sep1 DT/Tm Tech:	
PM, Quote: RW2, 27038										Sep2 DT/Tm Tech:	
Prep Tech: RichardsonB										Prep Tech: RichardsonB	
6/21/2016 11:44:40 AM	127642, Washington Closure Hanford LLC Bechtel Hanford, Inc.	All Tests: 6173019	AXTA, 6173020	7SSR, SEQ Batch, Test: None	7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP15) SR Uranium-234,235,238 by Alpha Spec					Balance Id:1120373922,	
AnalyDueDate: 06/27/2016	Batch: 6173020	SOIL	pCi/g							Pipet #: _____	
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date
06/16/2016 07:40	1.01g,in	1.01g	UTC33680	05/27/16,rd	05/27/16,01,r	100	1	45,4	45,4	45,4	Comments: <i>and</i>
1 M8R1X-1-AA	J6F200410-1-SAMP										Beta: _____
06/16/2016 08:15	1.03g,in	1.03g	UTC33681	05/27/16,rd	05/27/16,01,r	100	3				
2 M8R10-1-AA	J6F200410-2-SAMP										
06/16/2016 08:15	1.06g,in	1.06g	UTC33682	05/27/16,rd	05/27/16,01,r	100	4				
3 M8R10-1-ADX	J6F200410-2-DUP										
06/16/2016 08:15	1.05g,in	1.05g	UTC33683	05/27/16,rd	05/27/16,01,r	100	4				
4 M8R11-1-AA	J6F200410-3-SAMP										
06/16/2016 07:55	1.06g,in	1.06g	UTC33684	05/27/16,rd	05/27/16,01,r	100	4				
5 M8R12-1-AA	J6F200410-4-SAMP										
06/16/2016 08:35	1.15g,in	1.15g	UTC33685	05/27/16,rd	05/27/16,01,r	100	4				
6 M8R13-1-AA	J6F200410-5-SAMP										
06/16/2016 08:25	1.16g,in	1.16g	UTC33686	05/27/16,rd	05/27/16,01,r	100	4				
7 M8R14-1-AA	J6F200410-6-SAMP										
06/16/2016 09:45											
TestAmerica Richland Wa.	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	ISV - Insufficient Volume for Analysis									
		WO Cnt: 7 Prep_SamplePrep v4.8.69									

Sample Preparation/Analysis									
Batch: 6173020	SOIL	pCi/g	PM, Quote: RW2, 27038				Prep Tech: RichardsonB		
SEQ Batch, Test: None									
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Amt/Unit	Adj Amt/Unit (Un-Acidified)	QC Tracer Prep Date	Dish Size	Ppt or Geometry	Count Time Min	Detector Id
Sample Date	Amt/Unit	Acidified/Unit	Amt/Unit	Amt/Unit	Prep Date	Yield	Geometry	(24hr) Circle	CR Analyst, Init/Date
8 M8R15-1-AA J6F201410-7-SAMP 06/16/2016 09:37	1.05g,in	1.05g	1.05g,in	1.05g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	225	1663 07/23/16W
9 M8R16-1-AA J6F201410-8-SAMP 06/16/2016 09:15	1.02g,in	1.02g	1.02g,in	1.02g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	1	Beta:
10 M8R17-1-AA J6F201410-9-SAMP 06/16/2016 08:43	1.36g,in	1.36g	1.36g,in	1.36g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	3	Beta:
11 M8R18-1-AA J6F201410-10-SAMP 06/16/2016 09:57	1.24g,in	1.24g	1.24g,in	1.24g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	4	Beta:
12 M8R19-1-AA J6F201410-11-SAMP 06/16/2016 09:26	1.04g,in	1.04g	1.04g,in	1.04g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	6	Beta: <u>Mall</u>
13 M8R2A-1-AA J6F201410-12-SAMP 06/16/2016 08:49	1.00g,in	1.00g	1.00g,in	1.00g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	9	Beta:
14 M8R2C-1-AA J6F201410-13-SAMP 06/16/2016 07:40	1.02g,in	1.02g	1.02g,in	1.02g	05/27/16,pd 06/15/01,r	1X60MLAG;1XLP	AmRec: 1X60MLAG;1XLP	12	Beta:
TestAmerica Richland Wa.	Key: In - Initial Amt, fi - Final Amt, df - Diluted Amt, s1 - Sept1, s2 - Sept2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	ISV - Insufficient Volume for Analysis				WO Cnt: 14 Prep_SamplePrep v4.8.69			

Sample Preparation/Analysis									
6/21/2016 11:44:43 AM									Balance Id:1120373922,,
AnalyDueDate: 06/27/2016	7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP015)	SR Uranium-234,235,238 by Alpha Spec	5I CLIENT: HANFORD	Pipet #: _____	Sep1 DT/Tm Tech:	Sep2 DT/Tm Tech:	Prep Tech: RichardsonB	Comments: _____	WO Cnt: 16
Batch: 6173020	pCi/g								Prep SamplePrp v4.8.69
SEQ Batch, Test: None									
Work Ord. Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min
15 M8R22-1-AA-B	1.13g,in	1.13g			UUTCG33894				
J6F2-0000-20-BLK					05/27/16, pd				
06/21/2016 11:43 pd						#Containers: 1			
16 M8R22-1-AC-C	1.02g,in	1.02g			UISH2103				
J6F2-0000-20-LCS					05/04/16, pd				
06/21/2016 11:44 pd						#Containers: 1			
TestAmerica Richland Wa.	Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	lSV - Insufficient Volume for Analysis	Page 3	Prep_SamplePrp					

6/21/2016 11:44:44 AM

Sample Preparation/Analysis

Balance Id:1120373922,,

7S Ulso Prp PRP003/PRP005, Sep ALP009(ALP015)
 SR Uranium-234,235,238 by Alpha Spec
 51 CLIENT: HANFORD

AnayDueDate: 06/27/2016

pCi/g

Batch: 6173020
 SEQ Batch, Test: None

Pipet #: _____

Sep1 DT/Tm Tech:

Prep Tech: RichardsonB

Sep2 DT/Tm Tech:

Prep Tech: RichardsonB

Comments:

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
-------------------------------	-------------------	-------------------------	-----------------------------	--------------------------------	------------------------	-----------------	--------------	--------------------	-------------------	----------------	---------------------------------	--------------------------	-----------

All Clients For Batch:
 127642, Washington Closure Hanford LLC Bechtel Hanford, Inc. RW2, 27038

M8R1X1AA-SAMP	Constituent List:	pCi/g	LCL:20	TCL:105	RPD:35	U-234	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:
U-232	RDL:	pCi/g	LCL:	TCL:	RPD:	U-238	RDL:1.00E+00	pCi/g	LCL:	UCL:	RPD:
U-235	RDL:1.00E+00										

M8R221AA-BLK:

M8R221AC-LCS:

M8R1X1AA-SAMP Calc Info:

Uncert Level (#s) .: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M8R221AA-BLK:

Uncert Level (#s) .: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M8R221AC-LCS:

Uncert Level (#s) .: 2 Decay to SaDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica
 Richland Wa.

Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, s1 - Sept1, s2 - Sept2
 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 16
 Prep_SamplePep v4.8.69

6/24/2016 12:27:36 PM

ICOC Fraction Transfer/Status Report

By Date: 6/25/2015, 6/29/2016, Batch: '6173020', User: *ALL Order By DateTimeAccepting

Q	Batch	Work Ord	CurStatus	Accepting	SOPs,Reagents,Comments
6173020					
AC		Rev1C	CarnesM	6/23/2016 6:56:09	
SC		wagarr	IsBatched	6/21/2016 7:08:46 AM	ICOC_RADCALC v4.9.0
SC		CarnesM	Sep1C	6/23/2016 6:56:09 AM	RL-ALP-004 REVISION 6
SC		CarnesM	Sep2C	6/23/2016 12:35:34 PM	RL-ALP-015 REVISION 6
SC		WoodT	InCnt1	6/23/2016 12:56:23 PM	RL-CI-008 REVISION 6
SC		BullJ	CalcC	6/24/2016 10:43:15 AM	RL-CI-008 REVISION 7
SC		antonsonl	Rev1C	6/24/2016 12:26:04 PM	RL-DR-001 Rev 7
AC		CarnesM		6/23/2016 12:35:34	
AC		WoodT		6/23/2016 12:56:23	
AC		BullJ		6/24/2016 10:43:15	
AC		antonsonl		6/24/2016 12:26:04	

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Page 1

Grp Rec Cnt:5
ICOCFractions v4.9.4

Sample Preparation/Analysis										Balance Id:J79104,1120421763,,	
6/21/2016 9:29:43 PM					AX Gamma Prp PRP003/GAM001					Pipet #:	
127642, Washington Closure Hanford LLC , TA Gamma by HPGE					51 CLIENT: HANFORD					Sep1 DT/Tm Tech:	
AnlyDueDate: 06/27/2016					PM, Quote: RW2, 27038					Sep2 DT/Tm Tech:	
Batch: 6173019 SOIL pCi/g					Prep Tech: RichardsonB					Prep Tech: RichardsonB	
SEQ Batch, Test: None	All Tests: 6173019 AXTA ₄ 6173020 7SSR,	Total Amt/Unit	Initial Amt/Unit	Adj Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	CR Analyst, Init/Date
Work Ord, Lot, Sample Date	Total Acidified/Unit	Amt/Unit	Amt/Unit	(Un-Acidified)	Prep Date	Yield	Size	Geometry	Count (24hr) Circle	Comments:	
1 J1V902;M8R1X1AC J6F2004:10-SAMP 06/16/2016 07:40	371.00g,in 1682.50g,ff	371.00g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Beta:
2 J1V902 DUP:M8R1X1AD J6F2004:10-DUP 06/16/2016 07:40	299.90g,in 1678.20g,ff	299.90g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Alpha:
3 J1V903;M8R101AC J6F2004:10-2-SAMP 06/16/2016 08:15	395.10g,in 1570.20g,ff	395.10g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Beta:
4 J1V904;M8R111AC J6F2004:10-3-SAMP 06/16/2016 08:55	347.40g,in 1657.90g,ff	347.40g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Alpha:
5 J1V905;M8R121AC J6F2004:10-4-SAMP 06/16/2016 08:35	379.70g,in 1583.80g,fi	379.70g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Beta:
6 J1V906;M8R131AC J6F2004:10-5-SAMP 06/16/2016 08:25	320.10g,in 1793.90g,fi	320.10g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Alpha:
7 J1V907;M8R141AC J6F2004:10-6-SAMP 06/16/2016 09:45	320.10g,in 1793.90g,fi	320.10g,in AmRec: 1X60MLAG;1XL P	#Containers: 2								Beta:
TestAmerica Richland Wa.	Key: In - Initial Amt, f - Final Amt, di - Diluted Amt, s1 - Sep1, s2 - Sep2 pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added	ISV - Insufficient Volume for Analysis					Page 1				
		WO Cnt: 7					Prep_SamplePrep v4.8.69				

Sample Preparation/Analysis											Balance Id:1120373922,,	
											Pipet #: _____	
											Sep1 DT/Tm Tech: _____	
											Sep2 DT/Tm Tech: _____	
Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Tracer Yield	Dish Size	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date
15M821-1-AA-B J6F210000-19-BLK 06/21/2016 07:07 pd	348.00g/in	348.00g/in	OSBK	6300	260	Q16	147	6/12/16				Comments:
16M821-1-AC-C J6F210000-19-LCS 06/21/2016 07:07 pd	350.10g/in	350.10g/in	QC20009 08/04/09.pd 09/01/09.r	6300	260	Q16	147	6/12/16				Beta:
												Alpha:
												Beta:

6/21/2016 1:33:06 PM

Sample Preparation/Analysis

Balance Id:1120373922,,

AX Gamma Ptp PRP003/GAM001

TA Gamma by HPGE

51 CLIENT: HANFORD

AnalyDueDate: 06/27/2016**pCi/g**

Pipet #: _____

Sep1 DT/Tm Tech:**Sep2 DT/Tm Tech:****Prep Tech: RichardsonB****Batch:** 6173019
SEQ Batch, Test: None**Comments:**

Work Ord, Lot, Sample Date	Total Amt/Unit	Total Acidified/Unit	Initial Aliquot Amt/Unit	Adj Aliq Amt (Un-Acidified)	QC Tracer Prep Date	Dish Yield	Ppt or Geometry	Count Time Min	Detector Id	Count On Off (24hr) Circle	CR Analyst, Init/Date	Comments:
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All Clients for Batch:
127642, Washington Closure Hanford LLC

Bechtel Hanford, Inc.

, RW2, 27038

M8R1X1AC-SAMP Constituent List:

Co-60	RDL:5.00E-02	pCi/g	LCL:	UCL:	RPD:	Cs-137	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35
Cs-137DA	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35	Eu-152	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
Eu-154	RDL:1.00E-01	pCi/g	LCL:70	UCL:130	RPD:35	Eu-155	RDL:1.00E-01	pCi/g	LCL:	UCL:	RPD:
K-40	RDL:	pCi/g	LCL:	UCL:	RPD:						

M8R211AA-BLK:

M8R211AC-LCS:

M8R1X1AC-SAMP Calc Info:

Uncert Level (#s) :: 2 Decay to SdDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M8R211AA-BLK:

Uncert Level (#s) :: 2 Decay to SdDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

M8R211AC-LCS:

Uncert Level (#s) :: 2 Decay to SdDt: Y Blk Subt.: N Sci.Not.: Y ODRs: B

TestAmerica
Richland Wa.Key: In - Initial Amt, fi - Final Amt, di - Diluted Amt, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added
pd - Prep Dt, dc - Date Chg, r - Reference Dt, ec-Enrichment Cell, ct-Cocktailed Added

ISV - Insufficient Volume for Analysis

WO Cnt: 16
Prep_SamplePrep V4.8.69

6/23/2016 1:09:02 PM

ICOC Fraction Transfer/Status Report

ByDate: 6/24/2015, 6/28/2016, Batch: '6173019', User: *ALL Order By DateTimeAccepting

Q Batch	Work Ord	CurStatus	Accepting			SOPs, Reagents, Comments
6173019						
AC	Rev1C	RichardsonB	6/21/2016 7:36:33			
SC	wagarr	IsBatched	6/21/2016 7:08:46 AM			ICOC_RADCALC v4.9.0
SC	RichardsonB	InPrep	6/21/2016 7:36:33 AM			RL-PRP-003 REV6
SC	RichardsonB	Prep2C	6/21/2016 1:35:35 PM			RL-GAM-001 REV6
SC	WoodT	InCnt1	6/21/2016 2:13:45 PM			RL-CI-007 REVISION 5
SC	carnesj	Rev1C	6/23/2016 1:07:19 PM			RL-DR-001 Rev 7
AC		RichardsonB	6/21/2016 1:35:35 PM			
AC		WoodT	6/21/2016 2:13:45 PM			
AC		carnesj	6/23/2016 1:07:19 PM			

AC: Accepting Entry; SC: Status Change

TestAmerica Richland
Richland Wa.

Page 1

Grp Rec Cnt: 4
ICOCFractions v4.9.4

ANALYTICAL REPORT

Job Number: 280-84721-1

SDG Number: JP1047

Job Description: SAF# RC-148

For:

Washington Closure Hanford
2620 Fermi Avenue
Richland, WA 99354

Attention: Joan H Kessner



Approved for release.
Kae E Yoder
Senior Project Manager
6/29/2016 3:41 PM

Kae E Yoder, Senior Project Manager
4955 Yarrow Street, Arvada, CO, 80002
(303)736-0190
kae.yoder@testamericainc.com
06/29/2016

The test results in this report relate only to the samples in this report and meet all requirements of NELAC, with any exceptions noted. Pursuant to NELAP, this report shall not be reproduced except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Denver Project Manager.

The Lab Certification ID# is 4025.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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CASE NARRATIVE

Client: Washington Closure Hanford

Project: WASHINGTON CLOSURE HANFORD

Job Number: 280-84721-1

**SDG #: JP1047
SAF#: RC-148**

**Date SDG Closed: June 21, 2016
Data Deliverable: 7 Day / Summary**

CLIENT ID	LAB ID	ANALYSES REQUESTED	ANALYSES PERFORMED
J1V901	280-84721-1	6010/7471	6010B/6020/7471A
J1V902	280-84721-2	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V903	280-84721-3	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V904	280-84721-4	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V905	280-84721-5	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V906	280-84721-6	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V907	280-84721-7	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V908	280-84721-8	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V909	280-84721-9	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V910	280-84721-10	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V911	280-84721-11	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V912	280-84721-12	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V913	280-84721-13	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C
J1V914	280-84721-14	6010/7471/8082/WTPH-D+/9045/8270	6010B/6020/7471A/8082/NWTPH-Dx/9045C/8270C

The Uranium 6020 method substitution noted above, as agreed to by all parties, has no technical impact on the data.

I certify that this data package is in compliance with the SOW, both technically and for completeness, for other than the conditions detailed in this Case Narrative. Release of the data contained in this hard copy data package has been authorized by the Laboratory Manager or a designee, as verified by the signature on the Report Cover.

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted. Calculations are performed before rounding to avoid round-off errors in calculated results.

This report includes reporting limits (RLs) less than TestAmerica Denver's practical quantitation limits. These reporting limits are being used specifically at the client's request to meet the needs of this project. Please note that data are not normally reported to these levels without qualification, since they are inherently less reliable and potentially less defensible than required by the current NELAC standards.

The results, RLs and MDLs included in this report have been adjusted for dry weight, as appropriate.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 6/21/2016 9:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.3° C, 1.0° C and 1.6° C.

GC/MS SEMIVOLATILES - SW846 8270C

No anomalies were encountered.

GC SEMIVOLATILES - SW846 8082 - PCBs

The laboratory noted that a Sulfuric Acid clean-up was performed on the samples presented in this report to reduce matrix interferences.

No anomalies were encountered.

GC SEMIVOLATILES - NWTPH-Dx - DRO

Low levels of C10-C36 and C10-C28 are present in the method blank associated with batch 280-330861. Because the concentrations in the method blank are not present at levels greater than half the reporting limit, corrective action is deemed unnecessary. Associated sample results present above the MDL and/or RL have been flagged with a "B".

No other anomalies were encountered.

TOTAL METALS - SW846 6010B/6020/7471A

Serial dilution of a digestate in batch 280-330763 indicates that physical and chemical interferences are present for several elements. Results have been flagged with an "X".

Each sample is analyzed to achieve the lowest possible reporting limits within the constraints of the methods. With the exception of sample J1V901, the samples presented in this report required a 5X dilution prior to the analysis of Beryllium, Cobalt and Zinc to minimize the interference caused by Titanium concentrations greater than the linear range. The reporting limits have been adjusted relative to the dilution required.

Low levels of Barium, Calcium, Magnesium, Strontium, Tin and Uranium are present in the method blanks associated with batches 280-330763 and 280-330762, respectively. Because the concentrations in the method blanks are not present at levels greater than half the reporting limit, corrective action is deemed unnecessary.

It can be noted that the sample amount was greater than four times the spike amount for Aluminum, Iron and Manganese in the Matrix Spike performed on sample J1V902; therefore, control limits are not applicable.

The Matrix Spike performed on sample J1V902 exhibited percent recoveries outside the control limits for Boron, Lithium, Molybdenum, Silicon and Tin, and the associated sample results have been flagged "N". There is no indication that the analytical system was operating out of control, and method accuracy has been verified by the acceptable LCS analysis data; therefore, corrective action is deemed unnecessary.

No other anomalies were encountered.

GENERAL CHEMISTRY - SW846 9045C - PH

SU = standard units

No anomalies were encountered.

DATA REPORTING QUALIFIERS

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Lab Section	Qualifier	Description
GC/MS Semi VOA	U	Analyzed for but not detected.
	J	Indicates an Estimated Value for TICs
	N	Presumptive evidence of material.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC Semi VOA	B	Analyte was found in the associated method blank as well as in the sample.
	U	Analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Metals	U	Analyzed for but not detected.
	B	Estimated result. Result is less than the RL, but greater than MDL
	4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
	N	Recovery exceeds upper or lower control limits
	X	Serial dilution in the analytical batch indicates that physical and chemical interferences are present.
	C	The analyte was detected in both the sample and the associated QC blank, and the sample concentration was </= 5X the blank concentration.
General Chemistry	U	Analyzed for but not detected.

SAMPLE SUMMARY

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-84721-1	J1V901	Solid	06/16/2016 0730	06/21/2016 0935
280-84721-2	J1V902	Solid	06/16/2016 0740	06/21/2016 0935
280-84721-3	J1V903	Solid	06/16/2016 0815	06/21/2016 0935
280-84721-4	J1V904	Solid	06/16/2016 0755	06/21/2016 0935
280-84721-5	J1V905	Solid	06/16/2016 0835	06/21/2016 0935
280-84721-6	J1V906	Solid	06/16/2016 0825	06/21/2016 0935
280-84721-7	J1V907	Solid	06/16/2016 0945	06/21/2016 0935
280-84721-8	J1V908	Solid	06/16/2016 0937	06/21/2016 0935
280-84721-9	J1V909	Solid	06/16/2016 0915	06/21/2016 0935
280-84721-10	J1V910	Solid	06/16/2016 0843	06/21/2016 0935
280-84721-11	J1V911	Solid	06/16/2016 0957	06/21/2016 0935
280-84721-12	J1V912	Solid	06/16/2016 0926	06/21/2016 0935
280-84721-13	J1V913	Solid	06/16/2016 0849	06/21/2016 0935
280-84721-14	J1V914	Solid	06/16/2016 0740	06/21/2016 0935

METHOD SUMMARY

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Semivolatile Organic Compounds (GC/MS) Ultrasonic Extraction	TAL DEN TAL DEN	SW846 8270C SW846 3550C	
Polychlorinated Biphenyls (PCBs) by Gas Chromatography Ultrasonic Extraction	TAL DEN TAL DEN	SW846 8082 SW846 3550C	
Northwest - Semi-Volatile Petroleum Products (GC) Ultrasonic Extraction	TAL DEN TAL DEN	NWTPH NWTPH-Dx SW846 3550C	
Metals (ICP) Preparation, Metals	TAL DEN TAL DEN	SW846 6010B SW846 3050B	
Metals (ICP/MS) Preparation, Metals	TAL DEN TAL DEN	SW846 6020 SW846 3050B	
Mercury (CVAA) Preparation, Mercury	TAL DEN TAL DEN	SW846 7471A SW846 7471A	
pH Deionized Water Leaching Procedure	TAL DEN TAL DEN	SW846 9045C ASTM DI Leach	
ASTM D-2216	TAL DEN	ASTM D-2216	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

ASTM = ASTM International

NWTPH = Northwest Total Petroleum Hydrocarbon

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method	Analyst	Analyst ID
SW846 8270C	Hoefler, Alexandra F	AFH
SW846 8082	Jackson, Todd D	TDJ
NWTPH NWTPH-Dx	Moore, Tegan E	TEM
SW846 6010B	Kelly, Cara M	CMK
SW846 6010B	Scott, Samantha J	SJS
SW846 6020	Mooney, Joseph C	JM
SW846 7471A	Henning, Christopher D	CDH
SW846 9045C	Withers, William T	WTW
ASTM D-2216	Uge, Ikem E	IEU

SAMPLE RESULTS

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID:	280-84721-2	Date Sampled:	06/16/2016 0740
Client Matrix:	Solid	Date Received:	06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16089.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	06/27/2016 2040			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		23	J	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		260	J	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		16	U	16	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		46	U	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		81	U	81	330
4-Chloro-3-methylphenol		65	U	65	330
2-Chloronaphthalene		9.9	U	9.9	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		150	J	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		13	U	13	330
3,3'-Dichlorobenzidine		89	U	89	650
2,4-Dichlorophenol		9.9	U	9.9	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		65	U	65	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	650
2,4-Dinitrophenol		330	U	330	820
2,4-Dinitrotoluene		65	U	65	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		9.9	U	9.9	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		180	J	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 2.9

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16089.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	06/27/2016 2040			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		72	U	72	330
4-Nitroaniline		72	U	72	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		9.9	U	9.9	330
4-Nitrophenol		96	U	96	650
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	650
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		9.9	U	9.9	330
2,4,6-Trichlorophenol		9.9	U	9.9	330
Tributyl phosphate		57	U	57	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		80		33 - 135	
2-Fluorophenol		83		39 - 135	
Nitrobenzene-d5		79		32 - 135	
Phenol-d5		82		39 - 135	
Terphenyl-d14		97		30 - 135	
2,4,6-Tribromophenol		68		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 2.9

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16089.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	06/27/2016 2040			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 4

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.69	640	N J
	Unknown	1.87	300	N J
	Unknown	3.27	3300	N J
224-42-0	Dibenz[a,j]acridine	20.26	74	J N

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3

Date Sampled: 06/16/2016 0815

Client Matrix: Solid

% Moisture: 2.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16090.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/27/2016 2109			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	320
Acenaphthylene		17	U	17	320
Anthracene		17	U	17	320
Benzo[a]anthracene		19	U	19	320
Benzo[a]pyrene		19	U	19	320
Benzo[b]fluoranthene		25	U	25	320
Benzo[ghi]perylene		16	U	16	320
Benzo[k]fluoranthene		39	U	39	320
Bis(2-chloroethoxy)methane		22	U	22	320
Bis(2-chloroethyl)ether		16	U	16	320
bis (2-chloroisopropyl) ether		22	U	22	320
Bis(2-ethylhexyl) phthalate		45	U	45	320
4-Bromophenyl phenyl ether		18	U	18	320
Butyl benzyl phthalate		42	U	42	320
Carbazole		35	U	35	320
4-Chloroaniline		80	U	80	320
4-Chloro-3-methylphenol		64	U	64	320
2-Chloronaphthalene		9.7	U	9.7	320
2-Chlorophenol		20	U	20	320
4-Chlorophenyl phenyl ether		20	U	20	320
Chrysene		26	U	26	320
Dibenz(a,h)anthracene		18	U	18	320
Dibenzofuran		19	U	19	320
1,2-Dichlorobenzene		21	U	21	320
1,3-Dichlorobenzene		12	U	12	320
1,4-Dichlorobenzene		13	U	13	320
3,3'-Dichlorobenzidine		88	U	88	640
2,4-Dichlorophenol		9.7	U	9.7	320
Diethyl phthalate		25	U	25	320
2,4-Dimethylphenol		64	U	64	320
Dimethyl phthalate		22	U	22	320
Di-n-butyl phthalate		28	U	28	320
4,6-Dinitro-2-methylphenol		320	U	320	640
2,4-Dinitrophenol		320	U	320	800
2,4-Dinitrotoluene		64	U	64	320
2,6-Dinitrotoluene		27	U	27	320
Di-n-octyl phthalate		14	U	14	320
Fluoranthene		35	U	35	320
Fluorene		18	U	18	320
Hexachlorobenzene		28	U	28	320
Hexachlorobutadiene		9.7	U	9.7	320
Hexachlorocyclopentadiene		49	U	49	320
Hexachloroethane		21	U	21	320
Indeno[1,2,3-cd]pyrene		21	U	21	320
Isophorone		17	U	17	320
2-Methylnaphthalene		18	U	18	320

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3

Date Sampled: 06/16/2016 0815

Client Matrix: Solid

% Moisture: 2.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16090.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/27/2016 2109			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	320
3 & 4 Methylphenol		32	U	32	320
Naphthalene		30	U	30	320
2-Nitroaniline		49	U	49	320
3-Nitroaniline		71	U	71	320
4-Nitroaniline		71	U	71	320
Nitrobenzene		21	U	21	320
2-Nitrophenol		9.7	U	9.7	320
4-Nitrophenol		94	U	94	640
N-Nitrosodi-n-propylamine		30	U	30	320
N-Nitrosodiphenylamine		20	U	20	320
Pentachlorophenol		320	U	320	640
Phenanthrene		17	U	17	320
Phenol		18	U	18	320
Pyrene		12	U	12	320
1,2,4-Trichlorobenzene		27	U	27	320
2,4,5-Trichlorophenol		9.7	U	9.7	320
2,4,6-Trichlorophenol		9.7	U	9.7	320
Tributyl phosphate		56	U	56	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		84		33 - 135	
2-Fluorophenol		89		39 - 135	
Nitrobenzene-d5		84		32 - 135	
Phenol-d5		87		39 - 135	
Terphenyl-d14		100		30 - 135	
2,4,6-Tribromophenol		72		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3

Date Sampled: 06/16/2016 0815

Client Matrix: Solid

% Moisture: 2.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16090.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/27/2016 2109			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 7

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
593-45-3 112-95-8	Unknown	1.69	640	N J
	Unknown	1.87	320	N J
	Unknown	3.27	3400	N J
	Unknown	15.27	280	N J
	Octadecane	17.43	570	N J
	Eicosane	19.63	1100	N J
	Unknown	22.28	190	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4

Date Sampled: 06/16/2016 0755

Client Matrix: Solid

% Moisture: 3.7

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 280-331553	Instrument ID: SMS_B2
Prep Method: 3550C	Prep Batch: 280-331016	Lab File ID: B2-16091.D
Dilution: 1.0		Initial Weight/Volume: 30.1 g
Analysis Date: 06/27/2016 2138		Final Weight/Volume: 1 mL
Prep Date: 06/23/2016 1007		Injection Volume: 0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	340
Acenaphthylene		18	U	18	340
Anthracene		18	U	18	340
Benzo[a]anthracene		21	U	21	340
Benzo[a]pyrene		21	U	21	340
Benzo[b]fluoranthene		27	U	27	340
Benzo[ghi]perylene		17	U	17	340
Benzo[k]fluoranthene		41	U	41	340
Bis(2-chloroethoxy)methane		24	U	24	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		24	U	24	340
Bis(2-ethylhexyl) phthalate		48	U	48	340
4-Bromophenyl phenyl ether		20	U	20	340
Butyl benzyl phthalate		45	U	45	340
Carbazole		37	U	37	340
4-Chloroaniline		85	U	85	340
4-Chloro-3-methylphenol		68	U	68	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		22	U	22	340
4-Chlorophenyl phenyl ether		22	U	22	340
Chrysene		28	U	28	340
Dibenz(a,h)anthracene		20	U	20	340
Dibenzofuran		21	U	21	340
1,2-Dichlorobenzene		23	U	23	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		93	U	93	680
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		27	U	27	340
2,4-Dimethylphenol		68	U	68	340
Dimethyl phthalate		24	U	24	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	680
2,4-Dinitrophenol		340	U	340	850
2,4-Dinitrotoluene		68	U	68	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		19	U	19	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		52	U	52	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		23	U	23	340
Isophorone		18	U	18	340
2-Methylnaphthalene		20	U	20	340

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4

Date Sampled: 06/16/2016 0755

Client Matrix: Solid

% Moisture: 3.7

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16091.D
Dilution:	1.0			Initial Weight/Volume:	30.1 g
Analysis Date:	06/27/2016 2138			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		52	U	52	340
3-Nitroaniline		76	U	76	340
4-Nitroaniline		75	U	75	340
Nitrobenzene		23	U	23	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		100	U	100	680
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		22	U	22	340
Pentachlorophenol		340	U	340	680
Phenanthrene		18	U	18	340
Phenol		19	U	19	340
Pyrene		13	U	13	340
1,2,4-Trichlorobenzene		29	U	29	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340
Tributyl phosphate		60	U	60	1700
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		84		33 - 135	
2-Fluorophenol		84		39 - 135	
Nitrobenzene-d5		82		32 - 135	
Phenol-d5		85		39 - 135	
Terphenyl-d14		99		30 - 135	
2,4,6-Tribromophenol		70		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4

Date Sampled: 06/16/2016 0755

Client Matrix: Solid

% Moisture: 3.7

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16091.D
Dilution:	1.0			Initial Weight/Volume:	30.1 g
Analysis Date:	06/27/2016 2138			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 4

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.69	610	N J
	Unknown	1.87	330	N J
	Unknown	3.27	3500	N J
69296-90-8	Cyclohexanone, 2,3,3-trimethyl-2-(3-meth	18.57	610	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5

Date Sampled: 06/16/2016 0835

Client Matrix: Solid

% Moisture: 4.3

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16092.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	06/27/2016 2206			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		11	U	11	340
Acenaphthylene		17	U	17	340
Anthracene		17	U	17	340
Benzo[a]anthracene		20	U	20	340
Benzo[a]pyrene		20	U	20	340
Benzo[b]fluoranthene		27	U	27	340
Benzo[ghi]perylene		16	U	16	340
Benzo[k]fluoranthene		41	U	41	340
Bis(2-chloroethoxy)methane		24	U	24	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		24	U	24	340
Bis(2-ethylhexyl) phthalate		47	U	47	340
4-Bromophenyl phenyl ether		19	U	19	340
Butyl benzyl phthalate		44	U	44	340
Carbazole		37	U	37	340
4-Chloroaniline		84	U	84	340
4-Chloro-3-methylphenol		68	U	68	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		22	U	22	340
4-Chlorophenyl phenyl ether		22	U	22	340
Chrysene		28	U	28	340
Dibenz(a,h)anthracene		19	U	19	340
Dibenzofuran		20	U	20	340
1,2-Dichlorobenzene		23	U	23	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		92	U	92	680
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		27	U	27	340
2,4-Dimethylphenol		68	U	68	340
Dimethyl phthalate		24	U	24	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	680
2,4-Dinitrophenol		340	U	340	850
2,4-Dinitrotoluene		68	U	68	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		37	U	37	340
Fluorene		18	U	18	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		51	U	51	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		23	U	23	340
Isophorone		17	U	17	340
2-Methylnaphthalene		19	U	19	340

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5

Date Sampled: 06/16/2016 0835

Client Matrix: Solid

% Moisture: 4.3

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16092.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	06/27/2016 2206			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		51	U	51	340
3-Nitroaniline		75	U	75	340
4-Nitroaniline		74	U	74	340
Nitrobenzene		23	U	23	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		99	U	99	680
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		22	U	22	340
Pentachlorophenol		340	U	340	680
Phenanthrene		17	U	17	340
Phenol		18	U	18	340
Pyrene		12	U	12	340
1,2,4-Trichlorobenzene		29	U	29	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340
Tributyl phosphate		59	U	59	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		74		33 - 135	
2-Fluorophenol		76		39 - 135	
Nitrobenzene-d5		74		32 - 135	
Phenol-d5		75		39 - 135	
Terphenyl-d14		98		30 - 135	
2,4,6-Tribromophenol		68		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5

Date Sampled: 06/16/2016 0835

Client Matrix: Solid

% Moisture: 4.3

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16092.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	06/27/2016 2206			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.69	490	N J
	Unknown	1.87	300	N J
	Unknown	3.27	3100	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6

Date Sampled: 06/16/2016 0825

Client Matrix: Solid

% Moisture: 4.6

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16093.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/27/2016 2235			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		46	U	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		82	U	82	330
4-Chloro-3-methylphenol		66	U	66	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		90	U	90	660
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		66	U	66	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	660
2,4-Dinitrophenol		330	U	330	820
2,4-Dinitrotoluene		66	U	66	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6

Date Sampled: 06/16/2016 0825

Client Matrix: Solid

% Moisture: 4.6

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16093.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/27/2016 2235			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		73	U	73	330
4-Nitroaniline		72	U	72	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		97	U	97	660
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	660
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330
Tributyl phosphate		57	U	57	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		82		33 - 135	
2-Fluorophenol		86		39 - 135	
Nitrobenzene-d5		85		32 - 135	
Phenol-d5		87		39 - 135	
Terphenyl-d14		100		30 - 135	
2,4,6-Tribromophenol		67		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6

Date Sampled: 06/16/2016 0825

Client Matrix: Solid

% Moisture: 4.6

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16093.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/27/2016 2235			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.69	570	N J
	Unknown	1.87	360	N J
	Unknown	3.27	3400	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7

Date Sampled: 06/16/2016 0945

Client Matrix: Solid

% Moisture: 3.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16096.D
Dilution:	1.0			Initial Weight/Volume:	31.8 g
Analysis Date:	06/28/2016 0001			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	320
Acenaphthylene		17	U	17	320
Anthracene		17	U	17	320
Benzo[a]anthracene		20	U	20	320
Benzo[a]pyrene		20	U	20	320
Benzo[b]fluoranthene		26	U	26	320
Benzo[ghi]perylene		16	U	16	320
Benzo[k]fluoranthene		39	U	39	320
Bis(2-chloroethoxy)methane		22	U	22	320
Bis(2-chloroethyl)ether		16	U	16	320
bis (2-chloroisopropyl) ether		22	U	22	320
Bis(2-ethylhexyl) phthalate		45	U	45	320
4-Bromophenyl phenyl ether		19	U	19	320
Butyl benzyl phthalate		42	U	42	320
Carbazole		35	U	35	320
4-Chloroaniline		80	U	80	320
4-Chloro-3-methylphenol		64	U	64	320
2-Chloronaphthalene		9.8	U	9.8	320
2-Chlorophenol		21	U	21	320
4-Chlorophenyl phenyl ether		21	U	21	320
Chrysene		26	U	26	320
Dibenz(a,h)anthracene		19	U	19	320
Dibenzofuran		20	U	20	320
1,2-Dichlorobenzene		21	U	21	320
1,3-Dichlorobenzene		12	U	12	320
1,4-Dichlorobenzene		13	U	13	320
3,3'-Dichlorobenzidine		88	U	88	640
2,4-Dichlorophenol		9.8	U	9.8	320
Diethyl phthalate		25	U	25	320
2,4-Dimethylphenol		64	U	64	320
Dimethyl phthalate		22	U	22	320
Di-n-butyl phthalate		28	U	28	320
4,6-Dinitro-2-methylphenol		320	U	320	640
2,4-Dinitrophenol		330	U	330	810
2,4-Dinitrotoluene		64	U	64	320
2,6-Dinitrotoluene		27	U	27	320
Di-n-octyl phthalate		14	U	14	320
Fluoranthene		35	U	35	320
Fluorene		18	U	18	320
Hexachlorobenzene		28	U	28	320
Hexachlorobutadiene		9.8	U	9.8	320
Hexachlorocyclopentadiene		49	U	49	320
Hexachloroethane		21	U	21	320
Indeno[1,2,3-cd]pyrene		21	U	21	320
Isophorone		17	U	17	320
2-Methylnaphthalene		19	U	19	320

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7

Date Sampled: 06/16/2016 0945

Client Matrix: Solid

% Moisture: 3.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 280-331553	Instrument ID: SMS_B2
Prep Method: 3550C	Prep Batch: 280-331016	Lab File ID: B2-16096.D
Dilution: 1.0		Initial Weight/Volume: 31.8 g
Analysis Date: 06/28/2016 0001		Final Weight/Volume: 1 mL
Prep Date: 06/23/2016 1007		Injection Volume: 0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	320
3 & 4 Methylphenol		32	U	32	320
Naphthalene		30	U	30	320
2-Nitroaniline		49	U	49	320
3-Nitroaniline		71	U	71	320
4-Nitroaniline		71	U	71	320
Nitrobenzene		21	U	21	320
2-Nitrophenol		9.8	U	9.8	320
4-Nitrophenol		95	U	95	640
N-Nitrosodi-n-propylamine		30	U	30	320
N-Nitrosodiphenylamine		21	U	21	320
Pentachlorophenol		320	U	320	640
Phenanthrene		17	U	17	320
Phenol		18	U	18	320
Pyrene		12	U	12	320
1,2,4-Trichlorobenzene		27	U	27	320
2,4,5-Trichlorophenol		9.8	U	9.8	320
2,4,6-Trichlorophenol		9.8	U	9.8	320
Tributyl phosphate		56	U	56	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		84		33 - 135	
2-Fluorophenol		88		39 - 135	
Nitrobenzene-d5		85		32 - 135	
Phenol-d5		87		39 - 135	
Terphenyl-d14		100		30 - 135	
2,4,6-Tribromophenol		73		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7

Date Sampled: 06/16/2016 0945

Client Matrix: Solid

% Moisture: 3.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16096.D
Dilution:	1.0			Initial Weight/Volume:	31.8 g
Analysis Date:	06/28/2016 0001			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
994-05-8	Unknown	1.69	590	N J
	Butane, 2-methoxy-2-methyl-	1.87	280	N J
	Unknown	3.27	4100	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8

Date Sampled: 06/16/2016 0937

Client Matrix: Solid

% Moisture: 3.5

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16097.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	06/28/2016 0029			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		27	U	27	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		41	U	41	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		47	U	47	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		44	U	44	330
Carbazole		36	U	36	330
4-Chloroaniline		83	U	83	330
4-Chloro-3-methylphenol		67	U	67	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		91	U	91	670
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		67	U	67	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	670
2,4-Dinitrophenol		340	U	340	840
2,4-Dinitrotoluene		67	U	67	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		15	U	15	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		51	U	51	330
Hexachloroethane		22	U	22	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8

Date Sampled: 06/16/2016 0937

Client Matrix: Solid

% Moisture: 3.5

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16097.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	06/28/2016 0029			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		51	U	51	330
3-Nitroaniline		74	U	74	330
4-Nitroaniline		73	U	73	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		98	U	98	670
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	670
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330
Tributyl phosphate		58	U	58	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		87		33 - 135	
2-Fluorophenol		91		39 - 135	
Nitrobenzene-d5		86		32 - 135	
Phenol-d5		91		39 - 135	
Terphenyl-d14		106		30 - 135	
2,4,6-Tribromophenol		77		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8

Date Sampled: 06/16/2016 0937

Client Matrix: Solid

% Moisture: 3.5

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16097.D
Dilution:	1.0			Initial Weight/Volume:	30.7 g
Analysis Date:	06/28/2016 0029			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.68	660	N J
	Unknown	1.87	330	N J
	Unknown	3.27	5200	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID:	280-84721-9	Date Sampled:	06/16/2016 0915
Client Matrix:	Solid	Date Received:	06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16098.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	06/28/2016 0058			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		46	U	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		82	U	82	330
4-Chloro-3-methylphenol		66	U	66	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		90	U	90	660
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		66	U	66	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	660
2,4-Dinitrophenol		330	U	330	830
2,4-Dinitrotoluene		66	U	66	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID: 280-84721-9

Date Sampled: 06/16/2016 0915

Client Matrix: Solid

% Moisture: 3.8

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16098.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	06/28/2016 0058			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		73	U	73	330
4-Nitroaniline		73	U	73	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		98	U	98	660
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	660
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330
Tributyl phosphate		58	U	58	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		83		33 - 135	
2-Fluorophenol		88		39 - 135	
Nitrobenzene-d5		84		32 - 135	
Phenol-d5		89		39 - 135	
Terphenyl-d14		100		30 - 135	
2,4,6-Tribromophenol		70		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID: 280-84721-9

Date Sampled: 06/16/2016 0915

Client Matrix: Solid

% Moisture: 3.8

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16098.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	06/28/2016 0058			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 6

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
108-38-3	Unknown	1.69	570	N J
	Unknown	1.87	270	N J
	Unknown	3.27	3700	N J
	Benzene, 1,3-dimethyl-	3.60	140	N J
112-95-8	Eicosane	17.43	230	N J
112-95-8	Eicosane	19.64	140	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16099.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Analysis Date:	06/28/2016 0127			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		16	U	16	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		46	U	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		81	U	81	330
4-Chloro-3-methylphenol		65	U	65	330
2-Chloronaphthalene		9.9	U	9.9	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		13	U	13	330
3,3'-Dichlorobenzidine		89	U	89	650
2,4-Dichlorophenol		9.9	U	9.9	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		65	U	65	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	650
2,4-Dinitrophenol		330	U	330	820
2,4-Dinitrotoluene		65	U	65	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		9.9	U	9.9	330
Hexachlorocyclopentadiene		49	U	49	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16099.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Analysis Date:	06/28/2016 0127			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		49	U	49	330
3-Nitroaniline		72	U	72	330
4-Nitroaniline		72	U	72	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		9.9	U	9.9	330
4-Nitrophenol		96	U	96	650
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	650
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		9.9	U	9.9	330
2,4,6-Trichlorophenol		9.9	U	9.9	330
Tributyl phosphate		57	U	57	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		82		33 - 135	
2-Fluorophenol		83		39 - 135	
Nitrobenzene-d5		81		32 - 135	
Phenol-d5		83		39 - 135	
Terphenyl-d14		97		30 - 135	
2,4,6-Tribromophenol		69		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16099.D
Dilution:	1.0			Initial Weight/Volume:	31.7 g
Analysis Date:	06/28/2016 0127			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 4

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
108-38-3	Unknown	1.68	650	N J
	Unknown	1.87	280	N J
	Unknown	3.27	3500	N J
	Benzene, 1,3-dimethyl-	3.60	160	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11
Client Matrix: Solid

% Moisture: 4.4

Date Sampled: 06/16/2016 0957
Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 280-331553	Instrument ID: SMS_B2
Prep Method: 3550C	Prep Batch: 280-331016	Lab File ID: B2-16100.D
Dilution: 1.0		Initial Weight/Volume: 30.8 g
Analysis Date: 06/28/2016 0155		Final Weight/Volume: 1 mL
Prep Date: 06/23/2016 1007		Injection Volume: 0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	340
Acenaphthylene		17	U	17	340
Anthracene		17	U	17	340
Benzo[a]anthracene		72	J	20	340
Benzo[a]pyrene		49	J	20	340
Benzo[b]fluoranthene		76	J	27	340
Benzo[ghi]perylene		16	U	16	340
Benzo[k]fluoranthene		41	U	41	340
Bis(2-chloroethoxy)methane		23	U	23	340
Bis(2-chloroethyl)ether		17	U	17	340
bis (2-chloroisopropyl) ether		23	U	23	340
Bis(2-ethylhexyl) phthalate		47	U	47	340
4-Bromophenyl phenyl ether		19	U	19	340
Butyl benzyl phthalate		44	U	44	340
Carbazole		37	U	37	340
4-Chloroaniline		83	U	83	340
4-Chloro-3-methylphenol		67	U	67	340
2-Chloronaphthalene		10	U	10	340
2-Chlorophenol		21	U	21	340
4-Chlorophenyl phenyl ether		21	U	21	340
Chrysene		70	J	27	340
Dibenz(a,h)anthracene		19	U	19	340
Dibenzofuran		20	U	20	340
1,2-Dichlorobenzene		22	U	22	340
1,3-Dichlorobenzene		12	U	12	340
1,4-Dichlorobenzene		14	U	14	340
3,3'-Dichlorobenzidine		92	U	92	670
2,4-Dichlorophenol		10	U	10	340
Diethyl phthalate		26	U	26	340
2,4-Dimethylphenol		67	U	67	340
Dimethyl phthalate		23	U	23	340
Di-n-butyl phthalate		30	U	30	340
4,6-Dinitro-2-methylphenol		340	U	340	670
2,4-Dinitrophenol		340	U	340	840
2,4-Dinitrotoluene		67	U	67	340
2,6-Dinitrotoluene		29	U	29	340
Di-n-octyl phthalate		15	U	15	340
Fluoranthene		100	J	37	340
Fluorene		18	U	18	340
Hexachlorobenzene		30	U	30	340
Hexachlorobutadiene		10	U	10	340
Hexachlorocyclopentadiene		51	U	51	340
Hexachloroethane		22	U	22	340
Indeno[1,2,3-cd]pyrene		22	U	22	340
Isophorone		17	U	17	340
2-Methylnaphthalene		19	U	19	340

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11

Date Sampled: 06/16/2016 0957

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 280-331553	Instrument ID: SMS_B2
Prep Method: 3550C	Prep Batch: 280-331016	Lab File ID: B2-16100.D
Dilution: 1.0		Initial Weight/Volume: 30.8 g
Analysis Date: 06/28/2016 0155		Final Weight/Volume: 1 mL
Prep Date: 06/23/2016 1007		Injection Volume: 0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	340
3 & 4 Methylphenol		34	U	34	340
Naphthalene		32	U	32	340
2-Nitroaniline		51	U	51	340
3-Nitroaniline		74	U	74	340
4-Nitroaniline		74	U	74	340
Nitrobenzene		22	U	22	340
2-Nitrophenol		10	U	10	340
4-Nitrophenol		99	U	99	670
N-Nitrosodi-n-propylamine		32	U	32	340
N-Nitrosodiphenylamine		21	U	21	340
Pentachlorophenol		340	U	340	670
Phenanthrene		74	J	17	340
Phenol		18	U	18	340
Pyrene		120	J	12	340
1,2,4-Trichlorobenzene		29	U	29	340
2,4,5-Trichlorophenol		10	U	10	340
2,4,6-Trichlorophenol		10	U	10	340
Tributyl phosphate		59	U	59	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		77		33 - 135	
2-Fluorophenol		79		39 - 135	
Nitrobenzene-d5		77		32 - 135	
Phenol-d5		80		39 - 135	
Terphenyl-d14		95		30 - 135	
2,4,6-Tribromophenol		69		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11

Date Sampled: 06/16/2016 0957

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16100.D
Dilution:	1.0			Initial Weight/Volume:	30.8 g
Analysis Date:	06/28/2016 0155			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 4

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.69	610	N J
	Unknown	1.87	230	N J
	Unknown	3.27	3700	N J
192-97-2	Benzo[e]pyrene	17.40	44	J J N

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

% Moisture: 4.5

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16101.D
Dilution:	1.0			Initial Weight/Volume:	32.9 g
Analysis Date:	06/28/2016 0224			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		9.8	U	9.8	310
Acenaphthylene		16	U	16	310
Anthracene		16	U	16	310
Benzo[a]anthracene		19	U	19	310
Benzo[a]pyrene		19	U	19	310
Benzo[b]fluoranthene		25	U	25	310
Benzo[ghi]perylene		15	U	15	310
Benzo[k]fluoranthene		38	U	38	310
Bis(2-chloroethoxy)methane		22	U	22	310
Bis(2-chloroethyl)ether		16	U	16	310
bis (2-chloroisopropyl) ether		22	U	22	310
Bis(2-ethylhexyl) phthalate		44	U	44	310
4-Bromophenyl phenyl ether		18	U	18	310
Butyl benzyl phthalate		41	U	41	310
Carbazole		34	U	34	310
4-Chloroaniline		78	U	78	310
4-Chloro-3-methylphenol		63	U	63	310
2-Chloronaphthalene		9.5	U	9.5	310
2-Chlorophenol		20	U	20	310
4-Chlorophenyl phenyl ether		20	U	20	310
Chrysene		26	U	26	310
Dibenz(a,h)anthracene		18	U	18	310
Dibenzofuran		19	U	19	310
1,2-Dichlorobenzene		21	U	21	310
1,3-Dichlorobenzene		11	U	11	310
1,4-Dichlorobenzene		13	U	13	310
3,3'-Dichlorobenzidine		86	U	86	630
2,4-Dichlorophenol		9.5	U	9.5	310
Diethyl phthalate		25	U	25	310
2,4-Dimethylphenol		63	U	63	310
Dimethyl phthalate		22	U	22	310
Di-n-butyl phthalate		28	U	28	310
4,6-Dinitro-2-methylphenol		310	U	310	630
2,4-Dinitrophenol		320	U	320	790
2,4-Dinitrotoluene		63	U	63	310
2,6-Dinitrotoluene		27	U	27	310
Di-n-octyl phthalate		14	U	14	310
Fluoranthene		34	U	34	310
Fluorene		17	U	17	310
Hexachlorobenzene		28	U	28	310
Hexachlorobutadiene		9.5	U	9.5	310
Hexachlorocyclopentadiene		48	U	48	310
Hexachloroethane		20	U	20	310
Indeno[1,2,3-cd]pyrene		21	U	21	310
Isophorone		16	U	16	310
2-Methylnaphthalene		18	U	18	310

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

% Moisture: 4.5

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16101.D
Dilution:	1.0			Initial Weight/Volume:	32.9 g
Analysis Date:	06/28/2016 0224			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		12	U	12	310
3 & 4 Methylphenol		31	U	31	310
Naphthalene		30	U	30	310
2-Nitroaniline		48	U	48	310
3-Nitroaniline		70	U	70	310
4-Nitroaniline		69	U	69	310
Nitrobenzene		21	U	21	310
2-Nitrophenol		9.5	U	9.5	310
4-Nitrophenol		93	U	93	630
N-Nitrosodi-n-propylamine		30	U	30	310
N-Nitrosodiphenylamine		20	U	20	310
Pentachlorophenol		310	U	310	630
Phenanthrene		16	U	16	310
Phenol		17	U	17	310
Pyrene		12	U	12	310
1,2,4-Trichlorobenzene		27	U	27	310
2,4,5-Trichlorophenol		9.5	U	9.5	310
2,4,6-Trichlorophenol		9.5	U	9.5	310
Tributyl phosphate		55	U	55	1500
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		84		33 - 135	
2-Fluorophenol		87		39 - 135	
Nitrobenzene-d5		83		32 - 135	
Phenol-d5		86		39 - 135	
Terphenyl-d14		103		30 - 135	
2,4,6-Tribromophenol		72		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

% Moisture: 4.5

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16101.D
Dilution:	1.0			Initial Weight/Volume:	32.9 g
Analysis Date:	06/28/2016 0224			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.69	480	N J
	Unknown	1.87	220	N J
	Unknown	3.27	3600	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

% Moisture: 4.1

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16102.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	06/28/2016 0253			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		46	U	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		82	U	82	330
4-Chloro-3-methylphenol		66	U	66	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		90	U	90	660
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		66	U	66	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	660
2,4-Dinitrophenol		330	U	330	830
2,4-Dinitrotoluene		66	U	66	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

% Moisture: 4.1

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16102.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	06/28/2016 0253			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		73	U	73	330
4-Nitroaniline		73	U	73	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		97	U	97	660
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	660
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330
Tributyl phosphate		58	U	58	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		79		33 - 135	
2-Fluorophenol		81		39 - 135	
Nitrobenzene-d5		79		32 - 135	
Phenol-d5		81		39 - 135	
Terphenyl-d14		96		30 - 135	
2,4,6-Tribromophenol		68		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

% Moisture: 4.1

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16102.D
Dilution:	1.0			Initial Weight/Volume:	31.2 g
Analysis Date:	06/28/2016 0253			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
	Unknown	1.68	600	N J
	Unknown	1.87	270	N J
	Unknown	3.27	3700	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 3.1

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16103.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	06/28/2016 0321			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Acenaphthene		10	U	10	330
Acenaphthylene		17	U	17	330
Anthracene		17	U	17	330
Benzo[a]anthracene		20	U	20	330
Benzo[a]pyrene		20	U	20	330
Benzo[b]fluoranthene		26	U	26	330
Benzo[ghi]perylene		16	U	16	330
Benzo[k]fluoranthene		40	U	40	330
Bis(2-chloroethoxy)methane		23	U	23	330
Bis(2-chloroethyl)ether		17	U	17	330
bis (2-chloroisopropyl) ether		23	U	23	330
Bis(2-ethylhexyl) phthalate		46	U	46	330
4-Bromophenyl phenyl ether		19	U	19	330
Butyl benzyl phthalate		43	U	43	330
Carbazole		36	U	36	330
4-Chloroaniline		82	U	82	330
4-Chloro-3-methylphenol		66	U	66	330
2-Chloronaphthalene		10	U	10	330
2-Chlorophenol		21	U	21	330
4-Chlorophenyl phenyl ether		21	U	21	330
Chrysene		27	U	27	330
Dibenz(a,h)anthracene		19	U	19	330
Dibenzofuran		20	U	20	330
1,2-Dichlorobenzene		22	U	22	330
1,3-Dichlorobenzene		12	U	12	330
1,4-Dichlorobenzene		14	U	14	330
3,3'-Dichlorobenzidine		90	U	90	660
2,4-Dichlorophenol		10	U	10	330
Diethyl phthalate		26	U	26	330
2,4-Dimethylphenol		66	U	66	330
Dimethyl phthalate		23	U	23	330
Di-n-butyl phthalate		29	U	29	330
4,6-Dinitro-2-methylphenol		330	U	330	660
2,4-Dinitrophenol		330	U	330	820
2,4-Dinitrotoluene		66	U	66	330
2,6-Dinitrotoluene		28	U	28	330
Di-n-octyl phthalate		14	U	14	330
Fluoranthene		36	U	36	330
Fluorene		18	U	18	330
Hexachlorobenzene		29	U	29	330
Hexachlorobutadiene		10	U	10	330
Hexachlorocyclopentadiene		50	U	50	330
Hexachloroethane		21	U	21	330
Indeno[1,2,3-cd]pyrene		22	U	22	330
Isophorone		17	U	17	330
2-Methylnaphthalene		19	U	19	330

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 3.1

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method: 8270C	Analysis Batch: 280-331553	Instrument ID: SMS_B2
Prep Method: 3550C	Prep Batch: 280-331016	Lab File ID: B2-16103.D
Dilution: 1.0		Initial Weight/Volume: 31.0 g
Analysis Date: 06/28/2016 0321		Final Weight/Volume: 1 mL
Prep Date: 06/23/2016 1007		Injection Volume: 0.5 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
2-Methylphenol		13	U	13	330
3 & 4 Methylphenol		33	U	33	330
Naphthalene		31	U	31	330
2-Nitroaniline		50	U	50	330
3-Nitroaniline		73	U	73	330
4-Nitroaniline		72	U	72	330
Nitrobenzene		22	U	22	330
2-Nitrophenol		10	U	10	330
4-Nitrophenol		97	U	97	660
N-Nitrosodi-n-propylamine		31	U	31	330
N-Nitrosodiphenylamine		21	U	21	330
Pentachlorophenol		330	U	330	660
Phenanthrene		17	U	17	330
Phenol		18	U	18	330
Pyrene		12	U	12	330
1,2,4-Trichlorobenzene		28	U	28	330
2,4,5-Trichlorophenol		10	U	10	330
2,4,6-Trichlorophenol		10	U	10	330
Tributyl phosphate		58	U	58	1600
Surrogate		%Rec	Qualifier	Acceptance Limits	
2-Fluorobiphenyl		86		33 - 135	
2-Fluorophenol		89		39 - 135	
Nitrobenzene-d5		85		32 - 135	
Phenol-d5		90		39 - 135	
Terphenyl-d14		101		30 - 135	
2,4,6-Tribromophenol		71		24 - 135	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 3.1

Date Received: 06/21/2016 0935

8270C Semivolatile Organic Compounds (GC/MS)

Analysis Method:	8270C	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Prep Method:	3550C	Prep Batch:	280-331016	Lab File ID:	B2-16103.D
Dilution:	1.0			Initial Weight/Volume:	31.0 g
Analysis Date:	06/28/2016 0321			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL

Tentatively Identified Compounds

Number TIC's Found: 3

Cas Number	Analyte	RT	Est. Result (ug/Kg)	Qualifier
994-05-8	Unknown	1.69	690	N J
	Butane, 2-methoxy-2-methyl-	1.87	340	N J
	Unknown	3.27	3900	N J

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 2.9

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1202			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		101		59 - 130	
Tetrachloro-m-xylene		101		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3

Date Sampled: 06/16/2016 0815

Client Matrix: Solid

% Moisture: 2.4

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	30.4 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1224			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		106		59 - 130	
Tetrachloro-m-xylene		100		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4

Date Sampled: 06/16/2016 0755

Client Matrix: Solid

% Moisture: 3.7

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	32.5 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1329			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.6
Aroclor 1221		7.7	U	7.7	16
Aroclor 1232		1.9	U	1.9	9.6
Aroclor 1242		4.5	U	4.5	9.6
Aroclor 1248		4.5	U	4.5	9.6
Aroclor 1254		2.5	U	2.5	9.6
Aroclor 1260		2.5	U	2.5	9.6
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		96		59 - 130	
Tetrachloro-m-xylene		96		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5

Date Sampled: 06/16/2016 0835

Client Matrix: Solid

% Moisture: 4.3

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	31.3 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1350			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.0	U	8.0	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		99		59 - 130	
Tetrachloro-m-xylene		100		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6

Date Sampled: 06/16/2016 0825

Client Matrix: Solid

% Moisture: 4.6

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	31.3 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1412			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		93		59 - 130	
Tetrachloro-m-xylene		94		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7

Date Sampled: 06/16/2016 0945

Client Matrix: Solid

% Moisture: 3.4

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1434			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		58		2.7	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		98		59 - 130	
Tetrachloro-m-xylene		97		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8

Date Sampled: 06/16/2016 0937

Client Matrix: Solid

% Moisture: 3.5

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	32.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1455			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.7
Aroclor 1221		7.7	U	7.7	16
Aroclor 1232		1.9	U	1.9	9.7
Aroclor 1242		4.5	U	4.5	9.7
Aroclor 1248		4.5	U	4.5	9.7
Aroclor 1254		2.5	U	2.5	9.7
Aroclor 1260		2.5	U	2.5	9.7
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		98		59 - 130	
Tetrachloro-m-xylene		100		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID: 280-84721-9

Date Sampled: 06/16/2016 0915

Client Matrix: Solid

% Moisture: 3.8

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	31.9 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1517			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.8
Aroclor 1221		7.8	U	7.8	16
Aroclor 1232		2.0	U	2.0	9.8
Aroclor 1242		4.6	U	4.6	9.8
Aroclor 1248		4.6	U	4.6	9.8
Aroclor 1254		2.5	U	2.5	9.8
Aroclor 1260		2.5	U	2.5	9.8
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		91		59 - 130	
Tetrachloro-m-xylene		94		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	30.7 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1539			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.2	U	8.2	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		95		59 - 130	
Tetrachloro-m-xylene		96		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11

Date Sampled: 06/16/2016 0957

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	30.2 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1600			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.9	U	2.9	10
Aroclor 1221		8.3	U	8.3	17
Aroclor 1232		2.1	U	2.1	10
Aroclor 1242		4.8	U	4.8	10
Aroclor 1248		4.8	U	4.8	10
Aroclor 1254		2.7	U	2.7	10
Aroclor 1260		2.7	U	2.7	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		90		59 - 130	
Tetrachloro-m-xylene		94		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

% Moisture: 4.5

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	32.0 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1622			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.8
Aroclor 1221		7.9	U	7.9	16
Aroclor 1232		2.0	U	2.0	9.8
Aroclor 1242		4.6	U	4.6	9.8
Aroclor 1248		4.6	U	4.6	9.8
Aroclor 1254		2.6	U	2.6	9.8
Aroclor 1260		2.6	U	2.6	9.8
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		90		59 - 130	
Tetrachloro-m-xylene		91		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

% Moisture: 4.1

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	30.8 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1644			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.8	U	2.8	10
Aroclor 1221		8.1	U	8.1	17
Aroclor 1232		2.0	U	2.0	10
Aroclor 1242		4.7	U	4.7	10
Aroclor 1248		4.7	U	4.7	10
Aroclor 1254		2.6	U	2.6	10
Aroclor 1260		2.6	U	2.6	10
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		87		59 - 130	
Tetrachloro-m-xylene		94		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 3.1

Date Received: 06/21/2016 0935

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analysis Method:	8082	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Prep Method:	3550C	Prep Batch:	280-330919	Initial Weight/Volume:	31.6 g
Dilution:	1.0			Final Weight/Volume:	5 mL
Analysis Date:	06/26/2016 1706			Injection Volume:	1 uL
Prep Date:	06/22/2016 1512			Result Type:	PRIMARY

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
Aroclor 1016		2.7	U	2.7	9.8
Aroclor 1221		7.9	U	7.9	16
Aroclor 1232		2.0	U	2.0	9.8
Aroclor 1242		4.6	U	4.6	9.8
Aroclor 1248		4.6	U	4.6	9.8
Aroclor 1254		2.5	U	2.5	9.8
Aroclor 1260		2.5	U	2.5	9.8
Surrogate		%Rec	Qualifier	Acceptance Limits	
Decachlorobiphenyl		94		59 - 130	
Tetrachloro-m-xylene		92		53 - 128	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 2.9

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	008F0801.D
Dilution:	1.0			Initial Weight/Volume:	31.6 g
Analysis Date:	06/25/2016 1337			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		11000	B	970	3900
C10-C28		3900	B	660	3900
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	96			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3

Date Sampled: 06/16/2016 0815

Client Matrix: Solid

% Moisture: 2.4

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	011F1101.D
Dilution:	1.0			Initial Weight/Volume:	32.4 g
Analysis Date:	06/25/2016 1451			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		26000	B	950	3800
C10-C28		7200	B	640	3800
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	97			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4

Date Sampled: 06/16/2016 0755

Client Matrix: Solid

% Moisture: 3.7

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	012F1201.D
Dilution:	1.0			Initial Weight/Volume:	32.4 g
Analysis Date:	06/25/2016 1516			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		7400	B	960	3800
C10-C28		3300	J B	650	3800
Surrogate	%Rec			Qualifier	
o-Terphenyl	95			Acceptance Limits	
				49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5

Date Sampled: 06/16/2016 0835

Client Matrix: Solid

% Moisture: 4.3

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	013F1301.D
Dilution:	1.0			Initial Weight/Volume:	32.6 g
Analysis Date:	06/25/2016 1541			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		7500	B	960	3800
C10-C28		2800	J B	650	3800
Surrogate	%Rec			Qualifier	
o-Terphenyl	86			Acceptance Limits	
				49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6

Date Sampled: 06/16/2016 0825

Client Matrix: Solid

% Moisture: 4.6

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	014F1401.D
Dilution:	1.0			Initial Weight/Volume:	32.3 g
Analysis Date:	06/25/2016 1606			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		6800	B	970	3900
C10-C28		3300	J B	660	3900
Surrogate	%Rec			Qualifier	
o-Terphenyl	98			Acceptance Limits	
				49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7

Date Sampled: 06/16/2016 0945

Client Matrix: Solid

% Moisture: 3.4

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	016F1601.D
Dilution:	1.0			Initial Weight/Volume:	32.3 g
Analysis Date:	06/25/2016 1655			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		7900	B	960	3800
C10-C28		3000	J B	650	3800
Surrogate	%Rec			Qualifier	
o-Terphenyl	96			Acceptance Limits	
				49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8

Date Sampled: 06/16/2016 0937

Client Matrix: Solid

% Moisture: 3.5

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	017F1701.D
Dilution:	1.0			Initial Weight/Volume:	32.6 g
Analysis Date:	06/25/2016 1720			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		8100	B	950	3800
C10-C28		3300	J B	650	3800
Surrogate	%Rec			Qualifier	
o-Terphenyl	94			Acceptance Limits	
				49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID: 280-84721-9

Date Sampled: 06/16/2016 0915

Client Matrix: Solid

% Moisture: 3.8

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	018F1801.D
Dilution:	1.0			Initial Weight/Volume:	32.5 g
Analysis Date:	06/25/2016 1744			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		16000	B	960	3800
C10-C28		6300	B	650	3800
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	93			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	019F1901.D
Dilution:	1.0			Initial Weight/Volume:	32.2 g
Analysis Date:	06/25/2016 1809			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		7000	B	970	3900
C10-C28		3400	J B	660	3900
Surrogate	%Rec			Qualifier	
o-Terphenyl	93			Acceptance Limits	
				49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11

Date Sampled: 06/16/2016 0957

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	020F2001.D
Dilution:	1.0			Initial Weight/Volume:	32.1 g
Analysis Date:	06/25/2016 1834			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		11000	B	970	3900
C10-C28		4000	B	660	3900
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	96			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

% Moisture: 4.5

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	021F2101.D
Dilution:	1.0			Initial Weight/Volume:	30.6 g
Analysis Date:	06/25/2016 1858			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		12000	B	1000	4100
C10-C28		4800	B	700	4100
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	103			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

% Moisture: 4.1

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	022F2201.D
Dilution:	1.0			Initial Weight/Volume:	31.8 g
Analysis Date:	06/25/2016 1923			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		32000	B	980	3900
C10-C28		8000	B	670	3900
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	90			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 3.1

Date Received: 06/21/2016 0935

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Analysis Method:	NWTPH-Dx	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Prep Method:	3550C	Prep Batch:	280-330861	Lab File ID:	023F2301.D
Dilution:	1.0			Initial Weight/Volume:	32.0 g
Analysis Date:	06/25/2016 1948			Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL

Analyte	DryWt Corrected: Y	Result (ug/Kg)	Qualifier	MDL	RL
C10-C36		14000	B	960	3900
C10-C28		4800	B	660	3900
Surrogate	%Rec		Qualifier	Acceptance Limits	
o-Terphenyl	99			49 - 115	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V901

Lab Sample ID: 280-84721-1

Date Sampled: 06/16/2016 0730

Client Matrix: Solid

% Moisture: 0.0

Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.258 g
Analysis Date:	06/23/2016 0514			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		125	X	1.2	4.0
Antimony		0.30	U	0.30	0.48
Arsenic		0.52	U	0.52	0.79
Barium		1.2	X	0.060	0.40
Beryllium		0.026	U	0.026	0.16
Boron		0.78	U	0.78	1.6
Calcium		37.2	B C X	11.2	39.7
Chromium		0.10	B X	0.046	0.16
Cobalt		0.079	U	0.079	0.79
Copper		0.27	B X	0.17	0.79
Iron		161	X	3.0	4.0
Lithium		0.72	U	0.72	2.0
Magnesium		17.8	C X	2.9	15.9
Manganese		3.3	X	0.079	0.79
Molybdenum		0.21	U	0.21	1.6
Nickel		0.098	U X	0.098	3.2
Potassium		35.3	B	32.6	238
Selenium		0.68	U	0.68	0.79
Silicon		114	X	4.5	7.9
Silver		0.13	U	0.13	0.16
Sodium		46.9	U	46.9	95.4
Strontium		0.59	B X	0.029	0.79
Tin		0.72	U	0.72	7.9
Vanadium		0.25	B X	0.075	1.6
Zirconium		0.67	B X	0.28	2.0

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	1.0			Initial Weight/Volume:	1.258 g
Analysis Date:	06/24/2016 0508			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.033	U	0.033	0.16
Lead		0.27	B	0.21	0.40
Zinc		0.65	B	0.32	0.79

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	123SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.467 g
Analysis Date:	06/23/2016 2305			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V901

Lab Sample ID: 280-84721-1

Date Sampled: 06/16/2016 0730

Client Matrix: Solid

% Moisture: 0.0

Date Received: 06/21/2016 0935

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.13		0.0011	0.068

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.56 g
Analysis Date:	06/23/2016 1858			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0059	U	0.0059	0.018

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2
Client Matrix: Solid

% Moisture: 2.9

Date Sampled: 06/16/2016 0740
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.288 g
Analysis Date:	06/23/2016 0517			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8350	X	1.2	4.0
Antimony		0.30	U	0.30	0.48
Arsenic		3.4		0.53	0.80
Barium		74.1	X	0.061	0.40
Boron		0.78	UN	0.78	1.6
Calcium		4550	X	11.3	40.0
Chromium		11.2	X	0.046	0.16
Copper		13.3	X	0.17	0.80
Iron		23900	X	3.0	4.0
Lithium		7.6	N	0.73	2.0
Magnesium		4500	X	3.0	16.0
Manganese		355	X	0.080	0.80
Molybdenum		0.21	UN	0.21	1.6
Nickel		9.9	X	0.098	3.2
Potassium		1390		32.8	240
Selenium		0.69	U	0.69	0.80
Silicon		342	XN	4.5	8.0
Silver		0.13	U	0.13	0.16
Sodium		223		47.2	96.0
Strontium		21.3	X	0.029	0.80
Tin		0.73	UN	0.73	8.0
Vanadium		54.6	X	0.075	1.6
Zirconium		22.2	X	0.28	2.0

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.288 g
Analysis Date:	06/24/2016 1543			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.12	B	0.033	0.16
Lead		6.6		0.22	0.40

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.288 g
Analysis Date:	06/24/2016 0510			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.14	B	0.13	0.80
Cobalt		9.2		0.40	4.0
Zinc		47.7		1.6	4.0

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 2.9

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	124SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.275 g
Analysis Date:	06/23/2016 2309			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.55		0.0013	0.081

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.50 g
Analysis Date:	06/23/2016 1911			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0099	B	0.0068	0.021

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3
Client Matrix: Solid

% Moisture: 2.4

Date Sampled: 06/16/2016 0815
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.163 g
Analysis Date:	06/23/2016 0528			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8320	X	1.4	4.4
Antimony		0.33	B	0.33	0.53
Arsenic		3.6		0.58	0.88
Barium		74.7	X	0.067	0.44
Boron		1.4	B	0.86	1.8
Calcium		4420	X	12.4	44.1
Chromium		9.5	X	0.051	0.18
Copper		12.8	X	0.19	0.88
Iron		25400	X	3.3	4.4
Lithium		7.5		0.80	2.2
Magnesium		4340	X	3.3	17.6
Manganese		367	X	0.088	0.88
Molybdenum		0.23	U	0.23	1.8
Nickel		8.9	X	0.11	3.5
Potassium		1690		36.1	264
Selenium		0.89		0.76	0.88
Silicon		442	X	5.0	8.8
Silver		0.14	U	0.14	0.18
Sodium		237		52.0	106
Strontium		21.2	X	0.032	0.88
Tin		0.80	U	0.80	8.8
Vanadium		58.8	X	0.083	1.8
Zirconium		24.3	X	0.31	2.2

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.163 g
Analysis Date:	06/24/2016 1553			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.13	B	0.036	0.18
Lead		5.0		0.24	0.44

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.163 g
Analysis Date:	06/24/2016 0520			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.20	B	0.15	0.88
Cobalt		9.3		0.44	4.4
Zinc		49.1		1.8	4.4

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3

Date Sampled: 06/16/2016 0815

Client Matrix: Solid

% Moisture: 2.4

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	129SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.471 g
Analysis Date:	06/23/2016 2328			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.45		0.0011	0.070

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.52 g
Analysis Date:	06/23/2016 1913			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0085	B	0.0065	0.020

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4
Client Matrix: Solid

% Moisture: 3.7

Date Sampled: 06/16/2016 0755
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.035 g
Analysis Date:	06/23/2016 0531			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8220	X	1.6	5.0
Antimony		0.38	U	0.38	0.60
Arsenic		3.4		0.66	1.0
Barium		71.9	X	0.076	0.50
Boron		0.98	U	0.98	2.0
Calcium		3740	X	14.2	50.2
Chromium		9.8	X	0.058	0.20
Copper		12.0	X	0.22	1.0
Iron		24000	X	3.8	5.0
Lithium		7.5		0.91	2.5
Magnesium		4320	X	3.7	20.1
Manganese		347	X	0.10	1.0
Molybdenum		0.26	U	0.26	2.0
Nickel		9.4	X	0.12	4.0
Potassium		1440		41.2	301
Selenium		0.86	U	0.86	1.0
Silicon		375	X	5.7	10.0
Silver		0.16	U	0.16	0.20
Sodium		227		59.2	120
Strontium		19.4	X	0.036	1.0
Tin		0.92	U	0.92	10.0
Vanadium		55.6	X	0.094	2.0
Zirconium		21.5	X	0.36	2.5

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.035 g
Analysis Date:	06/24/2016 1556			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.12	B	0.041	0.20
Lead		9.0		0.27	0.50

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.035 g
Analysis Date:	06/24/2016 0523			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.18	B	0.17	1.0
Cobalt		8.9		0.50	5.0
Zinc		46.9		2.0	5.0

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4

Date Sampled: 06/16/2016 0755

Client Matrix: Solid

% Moisture: 3.7

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	130SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.402 g
Analysis Date:	06/23/2016 2332			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.50		0.0012	0.074

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.51 g
Analysis Date:	06/23/2016 1916			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.013	B	0.0068	0.021

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID:	280-84721-5	Date Sampled:	06/16/2016 0835
Client Matrix:	Solid	Date Received:	06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.197 g
Analysis Date:	06/23/2016 0533			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7400	X	1.4	4.4
Antimony		0.45	B	0.33	0.52
Arsenic		2.4		0.58	0.87
Barium		61.3	X	0.066	0.44
Boron		0.86	U	0.86	1.7
Calcium		4160	X	12.3	43.6
Chromium		8.4	X	0.051	0.17
Copper		12.0	X	0.19	0.87
Iron		23900	X	3.3	4.4
Lithium		6.7		0.79	2.2
Magnesium		4070	X	3.2	17.5
Manganese		315	X	0.087	0.87
Molybdenum		0.23	U	0.23	1.7
Nickel		8.4	X	0.11	3.5
Potassium		1230		35.8	262
Selenium		0.75	U	0.75	0.87
Silicon		355	X	4.9	8.7
Silver		0.14	U	0.14	0.17
Sodium		222		51.5	105
Strontium		18.4	X	0.031	0.87
Tin		0.80	U	0.80	8.7
Vanadium		59.3	X	0.082	1.7
Zirconium		22.4	X	0.31	2.2

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.197 g
Analysis Date:	06/24/2016 1558			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.10	B	0.036	0.17
Lead		4.7		0.24	0.44

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.197 g
Analysis Date:	06/24/2016 0536			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.14	U	0.14	0.87
Cobalt		8.6		0.44	4.4
Zinc		46.9		1.7	4.4

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5

Date Sampled: 06/16/2016 0835

Client Matrix: Solid

% Moisture: 4.3

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	133SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.131 g
Analysis Date:	06/23/2016 2343			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.53		0.0015	0.092

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.50 g
Analysis Date:	06/23/2016 1918			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0092	B	0.0069	0.021

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6
Client Matrix: Solid

% Moisture: 4.6

Date Sampled: 06/16/2016 0825
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.339 g
Analysis Date:	06/23/2016 0547			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7360	X	1.2	3.9
Antimony		0.30	U	0.30	0.47
Arsenic		3.3		0.52	0.78
Barium		65.6	X	0.060	0.39
Boron		0.77	U	0.77	1.6
Calcium		3720	X	11.0	39.2
Chromium		8.6	X	0.045	0.16
Copper		12.6	X	0.17	0.78
Iron		23000	X	3.0	3.9
Lithium		6.8		0.71	2.0
Magnesium		4280	X	2.9	15.7
Manganese		328	X	0.078	0.78
Nickel		9.4	X	0.096	3.1
Potassium		1210		32.1	235
Selenium		0.76	B	0.67	0.78
Silicon		304	X	4.4	7.8
Silver		0.13	U	0.13	0.16
Sodium		227		46.2	94.0
Strontium		18.3	X	0.028	0.78
Tin		0.71	U	0.71	7.8
Vanadium		54.2	X	0.074	1.6
Zirconium		22.0	X	0.28	2.0

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.339 g
Analysis Date:	06/24/2016 1601			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.11	B	0.032	0.16
Lead		5.5		0.21	0.39
Molybdenum		0.20	U	0.20	1.6

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.339 g
Analysis Date:	06/24/2016 0538			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.13	U	0.13	0.78
Cobalt		8.7		0.39	3.9
Zinc		45.8		1.6	3.9

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6

Date Sampled: 06/16/2016 0825

Client Matrix: Solid

% Moisture: 4.6

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	134SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.133 g
Analysis Date:	06/23/2016 2347			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.46		0.0015	0.093

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.53 g
Analysis Date:	06/23/2016 1921			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0085	B	0.0066	0.020

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID:	280-84721-7	Date Sampled:	06/16/2016 0945
Client Matrix:	Solid	Date Received:	06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.362 g
Analysis Date:	06/23/2016 0550			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8170	X	1.2	3.8
Antimony		0.33	B	0.29	0.46
Arsenic		3.7		0.50	0.76
Barium		74.8	X	0.058	0.38
Boron		0.74	U	0.74	1.5
Calcium		3840	X	10.7	38.0
Chromium		9.7	X	0.044	0.15
Copper		12.8	X	0.16	0.76
Iron		25300	X	2.9	3.8
Lithium		7.6		0.69	1.9
Magnesium		4590	X	2.8	15.2
Manganese		367	X	0.076	0.76
Nickel		9.8	X	0.093	3.0
Potassium		1390		31.2	228
Selenium		0.65	U	0.65	0.76
Silicon		348	X	4.3	7.6
Silver		0.12	U	0.12	0.15
Sodium		254		44.8	91.2
Strontium		20.6	X	0.027	0.76
Tin		0.69	U	0.69	7.6
Vanadium		59.8	X	0.071	1.5
Zirconium		23.3	X	0.27	1.9

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.362 g
Analysis Date:	06/24/2016 1614			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.12	B	0.031	0.15
Lead		7.3		0.21	0.38
Molybdenum		0.20	U	0.20	1.5

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.362 g
Analysis Date:	06/24/2016 0541			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.13	U	0.13	0.76
Cobalt		9.5		0.38	3.8
Zinc		49.3		1.5	3.8

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7

Date Sampled: 06/16/2016 0945

Client Matrix: Solid

% Moisture: 3.4

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	135SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.279 g
Analysis Date:	06/23/2016 2350			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.46		0.0013	0.081

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.55 g
Analysis Date:	06/23/2016 1923			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0086	B	0.0062	0.019

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID:	280-84721-8	Date Sampled:	06/16/2016 0937
Client Matrix:	Solid	Date Received:	06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.445 g
Analysis Date:	06/23/2016 0553			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8090	X	1.1	3.6
Antimony		0.38	B	0.27	0.43
Arsenic		4.0		0.47	0.72
Barium		73.0	X	0.055	0.36
Boron		0.70	U	0.70	1.4
Calcium		3520	X	10.1	35.9
Chromium		9.4	X	0.042	0.14
Copper		12.3	X	0.16	0.72
Iron		23000	X	2.7	3.6
Lithium		7.2		0.65	1.8
Magnesium		4240	X	2.7	14.3
Manganese		336	X	0.072	0.72
Nickel		9.3	X	0.088	2.9
Potassium		1300		29.4	215
Selenium		0.62	U	0.62	0.72
Silicon		298	X	4.1	7.2
Silver		0.11	U	0.11	0.14
Sodium		226		42.3	86.1
Strontium		20.2	X	0.026	0.72
Tin		0.65	U	0.65	7.2
Vanadium		53.8	X	0.067	1.4
Zirconium		21.8	X	0.25	1.8

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.445 g
Analysis Date:	06/24/2016 1616			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.13	B	0.029	0.14
Lead		9.5		0.19	0.36
Molybdenum		0.19	U	0.19	1.4

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.445 g
Analysis Date:	06/24/2016 0543			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.14	B	0.12	0.72
Cobalt		9.0		0.36	3.6
Zinc		45.9		1.4	3.6

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8

Date Sampled: 06/16/2016 0937

Client Matrix: Solid

% Moisture: 3.5

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	136SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.063 g
Analysis Date:	06/23/2016 2354			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.59		0.0015	0.098

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.53 g
Analysis Date:	06/23/2016 1926			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.013	B	0.0065	0.020

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID:	280-84721-9	Date Sampled:	06/16/2016 0915
Client Matrix:	Solid	Date Received:	06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.360 g
Analysis Date:	06/23/2016 0555			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7380	X	1.2	3.8
Antimony		0.38	B	0.29	0.46
Arsenic		3.8		0.50	0.76
Barium		65.3	X	0.058	0.38
Boron		0.75	U	0.75	1.5
Calcium		3550	X	10.8	38.2
Chromium		8.9	X	0.044	0.15
Copper		11.7	X	0.17	0.76
Iron		22200	X	2.9	3.8
Lithium		7.0		0.70	1.9
Magnesium		4110	X	2.8	15.3
Manganese		325	X	0.076	0.76
Nickel		9.0	X	0.094	3.1
Potassium		1370		31.3	229
Selenium		0.66	U	0.66	0.76
Silicon		314	X	4.3	7.6
Silver		0.12	U	0.12	0.15
Sodium		200		45.1	91.7
Strontium		18.7	X	0.028	0.76
Tin		0.70	U	0.70	7.6
Vanadium		52.7	X	0.072	1.5
Zirconium		20.5	X	0.27	1.9

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.360 g
Analysis Date:	06/24/2016 1619			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.088	B	0.031	0.15
Lead		7.4		0.21	0.38
Molybdenum		0.20	U	0.20	1.5

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.360 g
Analysis Date:	06/24/2016 0546			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.14	B	0.13	0.76
Cobalt		8.6		0.38	3.8
Zinc		46.8		1.5	3.8

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V909

Lab Sample ID: 280-84721-9

Date Sampled: 06/16/2016 0915

Client Matrix: Solid

% Moisture: 3.8

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	137SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.096 g
Analysis Date:	06/23/2016 2358			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.53		0.0015	0.095

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.50 g
Analysis Date:	06/23/2016 1928			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0086	B	0.0069	0.021

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10
Client Matrix: Solid

% Moisture: 4.4

Date Sampled: 06/16/2016 0843
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.068 g
Analysis Date:	06/23/2016 0558			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9470	X	1.5	4.9
Antimony		0.37	U	0.37	0.59
Arsenic		2.8		0.65	0.98
Barium		83.3	X	0.074	0.49
Boron		0.96	U	0.96	2.0
Calcium		4470	X	13.8	49.0
Chromium		11.0	X	0.057	0.20
Copper		15.0	X	0.21	0.98
Iron		27600	X	3.7	4.9
Lithium		8.5		0.89	2.4
Magnesium		5210	X	3.6	19.6
Manganese		419	X	0.098	0.98
Nickel		10.5	X	0.12	3.9
Potassium		1560		40.1	294
Selenium		0.84	U	0.84	0.98
Silicon		450	X	5.5	9.8
Silver		0.16	U	0.16	0.20
Sodium		267		57.8	117
Strontium		22.0	X	0.035	0.98
Tin		0.89	U	0.89	9.8
Vanadium		64.9	X	0.092	2.0
Zirconium		26.6	X	0.35	2.4

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.068 g
Analysis Date:	06/24/2016 1621			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.14	B	0.040	0.20
Lead		6.5		0.26	0.49
Molybdenum		0.25	U	0.25	2.0

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.068 g
Analysis Date:	06/24/2016 0548			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.16	B	0.16	0.98
Cobalt		9.6		0.49	4.9
Zinc		49.5		1.9	4.9

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	138SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.443 g
Analysis Date:	06/24/2016 0001			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.54		0.0011	0.072

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.55 g
Analysis Date:	06/23/2016 1935			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0091	B	0.0063	0.019

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11
Client Matrix: Solid

% Moisture: 4.4

Date Sampled: 06/16/2016 0957
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.244 g
Analysis Date:	06/23/2016 0601			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8270	X	1.3	4.2
Antimony		0.32	U	0.32	0.50
Arsenic		3.3		0.55	0.84
Barium		68.3	X	0.064	0.42
Boron		0.82	U	0.82	1.7
Calcium		3810	X	11.9	42.0
Chromium		9.7	X	0.049	0.17
Copper		12.4	X	0.18	0.84
Iron		24300	X	3.2	4.2
Lithium		7.6		0.76	2.1
Magnesium		4480	X	3.1	16.8
Manganese		349	X	0.084	0.84
Nickel		9.5	X	0.10	3.4
Potassium		1340		34.5	252
Selenium		0.72	U	0.72	0.84
Silicon		348	X	4.8	8.4
Silver		0.13	U	0.13	0.17
Sodium		228		49.6	101
Strontium		20.2	X	0.030	0.84
Tin		0.77	U	0.77	8.4
Vanadium		57.2	X	0.079	1.7
Zirconium		22.4	X	0.30	2.1

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.244 g
Analysis Date:	06/24/2016 1624			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.14	B	0.034	0.17
Lead		5.6		0.23	0.42
Molybdenum		0.22	U	0.22	1.7

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.244 g
Analysis Date:	06/24/2016 0551			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.16	B	0.14	0.84
Cobalt		9.2		0.42	4.2
Zinc		47.7		1.7	4.2

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11

Date Sampled: 06/16/2016 0957

Client Matrix: Solid

% Moisture: 4.4

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	139SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.445 g
Analysis Date:	06/24/2016 0005			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.44		0.0011	0.072

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.56 g
Analysis Date:	06/23/2016 1938			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0095	B	0.0062	0.019

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12
Client Matrix: Solid

% Moisture: 4.5

Date Sampled: 06/16/2016 0926
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.120 g
Analysis Date:	06/23/2016 0603			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8380	X	1.4	4.7
Antimony		0.36	U	0.36	0.56
Arsenic		3.2		0.62	0.93
Barium		73.8	X	0.071	0.47
Boron		0.92	U	0.92	1.9
Calcium		5050	X	13.2	46.7
Chromium		9.2	X	0.054	0.19
Copper		13.7	X	0.20	0.93
Iron		24600	X	3.6	4.7
Lithium		7.6		0.85	2.3
Magnesium		4570	X	3.5	18.7
Manganese		373	X	0.093	0.93
Nickel		9.9	X	0.11	3.7
Potassium		1380		38.3	280
Selenium		0.80	U	0.80	0.93
Silicon		403	X	5.3	9.3
Silver		0.15	U	0.15	0.19
Sodium		245		55.1	112
Strontium		20.6	X	0.034	0.93
Tin		0.85	U	0.85	9.3
Vanadium		58.0	X	0.088	1.9
Zirconium		23.4	X	0.33	2.3

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.120 g
Analysis Date:	06/24/2016 1627			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.14	B	0.038	0.19
Lead		6.0		0.25	0.47
Molybdenum		0.24	U	0.24	1.9

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.120 g
Analysis Date:	06/24/2016 0553			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.15	B	0.15	0.93
Cobalt		8.9		0.47	4.7
Zinc		48.7		1.9	4.7

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

% Moisture: 4.5

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	140SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.310 g
Analysis Date:	06/24/2016 0009			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.50		0.0013	0.080

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.58 g
Analysis Date:	06/23/2016 1940			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0091	B	0.0060	0.018

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13
Client Matrix: Solid

% Moisture: 4.1

Date Sampled: 06/16/2016 0849
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.283 g
Analysis Date:	06/23/2016 0606			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8090	X	1.3	4.1
Antimony		0.43	B	0.31	0.49
Arsenic		3.0		0.54	0.81
Barium		80.3	X	0.062	0.41
Boron		0.80	U	0.80	1.6
Calcium		3800	X	11.5	40.6
Chromium		10	X	0.047	0.16
Copper		13.1	X	0.18	0.81
Iron		22400	X	3.1	4.1
Lithium		7.5		0.74	2.0
Magnesium		4370	X	3.0	16.3
Manganese		340	X	0.081	0.81
Nickel		9.8	X	0.10	3.3
Potassium		1350		33.3	244
Selenium		0.70	U	0.70	0.81
Silicon		323	X	4.6	8.1
Silver		0.13	U	0.13	0.16
Sodium		219		47.9	97.5
Strontium		20.4	X	0.029	0.81
Tin		0.74	U	0.74	8.1
Vanadium		53.4	X	0.076	1.6
Zirconium		20.9	X	0.29	2.0

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.283 g
Analysis Date:	06/24/2016 1629			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.085	B	0.033	0.16
Lead		5.3		0.22	0.41
Molybdenum		0.21	U	0.21	1.6

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.283 g
Analysis Date:	06/24/2016 0556			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.18	B	0.13	0.81
Cobalt		8.6		0.41	4.1
Zinc		45.4		1.6	4.1

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

% Moisture: 4.1

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	141SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.284 g
Analysis Date:	06/24/2016 0013			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.49		0.0013	0.081

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.55 g
Analysis Date:	06/23/2016 1943			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0083	B	0.0063	0.019

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14
Client Matrix: Solid

% Moisture: 3.1

Date Sampled: 06/16/2016 0740
Date Received: 06/21/2016 0935

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	280-331023	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0			Initial Weight/Volume:	1.109 g
Analysis Date:	06/23/2016 0609			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8430	X	1.4	4.7
Antimony		0.35	U	0.35	0.56
Arsenic		3.5		0.61	0.93
Barium		74.4	X	0.071	0.47
Boron		0.91	U	0.91	1.9
Calcium		4000	X	13.1	46.5
Chromium		10.1	X	0.054	0.19
Copper		12.9	X	0.20	0.93
Iron		23600	X	3.5	4.7
Lithium		7.6		0.85	2.3
Magnesium		4260	X	3.4	18.6
Manganese		347	X	0.093	0.93
Nickel		9.5	X	0.11	3.7
Potassium		1440		38.1	279
Selenium		0.80	U	0.80	0.93
Silicon		319	X	5.3	9.3
Silver		0.15	U	0.15	0.19
Sodium		239		54.9	112
Strontium		21.0	X	0.033	0.93
Tin		0.85	U	0.85	9.3
Vanadium		54.5	X	0.087	1.9
Zirconium		22.4	X	0.33	2.3

Analysis Method:	6010B	Analysis Batch:	280-331281	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0			Initial Weight/Volume:	1.109 g
Analysis Date:	06/24/2016 1632			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Cadmium		0.11	B	0.038	0.19
Lead		6.7		0.25	0.47
Molybdenum		0.24	U	0.24	1.9

Analysis Method:	6010B	Analysis Batch:	280-331187	Instrument ID:	MT_026
Prep Method:	3050B	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0			Initial Weight/Volume:	1.109 g
Analysis Date:	06/24/2016 0558			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Beryllium		0.16	B	0.15	0.93
Cobalt		8.6		0.47	4.7
Zinc		47.8		1.9	4.7

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

% Moisture: 3.1

Date Received: 06/21/2016 0935

6010B Metals (ICP)

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	280-331198	Instrument ID:	MT_078
Prep Method:	3050B	Prep Batch:	280-330762	Lab File ID:	142SMPL.d
Dilution:	1.0			Initial Weight/Volume:	1.373 g
Analysis Date:	06/24/2016 0016			Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Uranium		0.66		0.0012	0.075

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Prep Method:	7471A	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0			Initial Weight/Volume:	0.57 g
Analysis Date:	06/23/2016 1945			Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.0090	B	0.0060	0.018

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V901

Lab Sample ID: 280-84721-1 Date Sampled: 06/16/2016 0730

Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Moisture	0.10	U	%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108				DryWt	Corrected: N

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V902

Lab Sample ID: 280-84721-2 Date Sampled: 06/16/2016 0740
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.77	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	2.9	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V903

Lab Sample ID: 280-84721-3 Date Sampled: 06/16/2016 0815
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.32	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	2.4	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V904

Lab Sample ID: 280-84721-4 Date Sampled: 06/16/2016 0755
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.28	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	3.7	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V905

Lab Sample ID: 280-84721-5 Date Sampled: 06/16/2016 0835
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.54	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	4.3	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V906

Lab Sample ID: 280-84721-6 Date Sampled: 06/16/2016 0825
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.79	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	4.6	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V907

Lab Sample ID: 280-84721-7 Date Sampled: 06/16/2016 0945
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.29	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	3.4	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V908

Lab Sample ID: 280-84721-8 Date Sampled: 06/16/2016 0937
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	7.50	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	3.5	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V909

Lab Sample ID: 280-84721-9 Date Sampled: 06/16/2016 0915
Client Matrix: Solid Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.24	SU	0.100	0.100	1.0	9045C	
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523		DryWt Corrected: N		
Percent Moisture	3.8	%	0.10	0.10	1.0	D-2216	
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108		DryWt Corrected: N		

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V910

Lab Sample ID: 280-84721-10

Date Sampled: 06/16/2016 0843

Client Matrix: Solid

Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.64		SU	0.100	0.100	1.0	9045C
	Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523				DryWt Corrected: N	
Percent Moisture	4.4		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108				DryWt Corrected: N	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V911

Lab Sample ID: 280-84721-11

Date Sampled: 06/16/2016 0957

Client Matrix: Solid

Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	7.91		SU	0.100	0.100	1.0	9045C
	Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523				DryWt Corrected: N	
Percent Moisture	4.4		%	0.10	0.10	1.0	D-2216
	Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108				DryWt Corrected: N	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V912

Lab Sample ID: 280-84721-12

Date Sampled: 06/16/2016 0926

Client Matrix: Solid

Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.45		SU	0.100	0.100	1.0	9045C
		Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523			DryWt Corrected: N	
Percent Moisture	4.5		%	0.10	0.10	1.0	D-2216
		Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108			DryWt Corrected: N	

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V913

Lab Sample ID: 280-84721-13

Date Sampled: 06/16/2016 0849

Client Matrix: Solid

Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.28	SU	0.100	0.100	1.0	9045C	DryWt Corrected: N
	Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523					
Percent Moisture	4.1	%	0.10	0.10	1.0	D-2216	DryWt Corrected: N
	Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108					

Analytical Data

Client: Washington Closure Hanford

Job Number: 280-84721-1

Sdg Number: JP1047

General Chemistry

Client Sample ID: J1V914

Lab Sample ID: 280-84721-14

Date Sampled: 06/16/2016 0740

Client Matrix: Solid

Date Received: 06/21/2016 0935

Analyte	Result	Qual	Units	RL	RL	Dil	Method
pH adj. to 25 deg C-Soluble	8.77	SU	0.100	0.100	1.0	9045C	DryWt Corrected: N
	Analysis Batch: 280-331098	Analysis Date: 06/23/2016 1523					
Percent Moisture	3.1	%	0.10	0.10	1.0	D-2216	DryWt Corrected: N
	Analysis Batch: 280-330889	Analysis Date: 06/22/2016 1108					

QUALITY CONTROL RESULTS

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Surrogate Recovery Report

8270C Semivolatile Organic Compounds (GC/MS)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	FBP %Rec	2FP %Rec	NBZ %Rec	PHL %Rec	TPH %Rec	TBP %Rec
280-84721-2	J1V902	80	83	79	82	97	68
280-84721-3	J1V903	84	89	84	87	100	72
280-84721-4	J1V904	84	84	82	85	99	70
280-84721-5	J1V905	74	76	74	75	98	68
280-84721-6	J1V906	82	86	85	87	100	67
280-84721-7	J1V907	84	88	85	87	100	73
280-84721-8	J1V908	87	91	86	91	106	77
280-84721-9	J1V909	83	88	84	89	100	70
280-84721-10	J1V910	82	83	81	83	97	69
280-84721-11	J1V911	77	79	77	80	95	69
280-84721-12	J1V912	84	87	83	86	103	72
280-84721-13	J1V913	79	81	79	81	96	68
280-84721-14	J1V914	86	89	85	90	101	71
MB 280-331016/1-A		86	85	84	86	101	63
LCS 280-331016/2-A		83	83	84	82	92	76
280-84721-6 MS	J1V906 MS	82	84	85	84	98	77
280-84721-6 MSD	J1V906 MSD	87	87	87	89	100	81

Surrogate	Acceptance Limits
FBP = 2-Fluorobiphenyl	33-135
2FP = 2-Fluorophenol	39-135
NBZ = Nitrobenzene-d5	32-135
PHL = Phenol-d5	39-135
TPH = Terphenyl-d14	30-135
TBP = 2,4,6-Tribromophenol	24-135

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Surrogate Recovery Report

8082 Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Client Matrix: Solid

Lab Sample ID	Client Sample ID	DCB1 %Rec	TCX1 %Rec
280-84721-2	J1V902	101	101
280-84721-3	J1V903	106	100
280-84721-4	J1V904	96	96
280-84721-5	J1V905	99	100
280-84721-6	J1V906	93	94
280-84721-7	J1V907	98	97
280-84721-8	J1V908	98	100
280-84721-9	J1V909	91	94
280-84721-10	J1V910	95	96
280-84721-11	J1V911	90	94
280-84721-12	J1V912	90	91
280-84721-13	J1V913	87	94
280-84721-14	J1V914	94	92
MB 280-330919/1-A		101	101
LCS 280-330919/2-A		105	110
280-84721-3 MS	J1V903 MS	90	96
280-84721-3 MSD	J1V903 MSD	95	96

Surrogate

DCB = Decachlorobiphenyl
TCX = Tetrachloro-m-xylene

Acceptance Limits

59-130
53-128

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Surrogate Recovery Report

NWTPH-Dx Northwest - Semi-Volatile Petroleum Products (GC)

Client Matrix: Solid

Lab Sample ID	Client Sample ID	OTPH %Rec
280-84721-2	J1V902	96
280-84721-3	J1V903	97
280-84721-4	J1V904	95
280-84721-5	J1V905	86
280-84721-6	J1V906	98
280-84721-7	J1V907	96
280-84721-8	J1V908	94
280-84721-9	J1V909	93
280-84721-10	J1V910	93
280-84721-11	J1V911	96
280-84721-12	J1V912	103
280-84721-13	J1V913	90
280-84721-14	J1V914	99
MB 280-330861/1-A		94
LCS 280-330861/2-A		104
LCSD		99
280-330861/3-A		
280-84721-2 MS	J1V902 MS	96
280-84721-2 MSD	J1V902 MSD	93

Surrogate
OTPH = o-Terphenyl

Acceptance Limits
49-115

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-331016

Method: 8270C Preparation: 3550C

Lab Sample ID:	MB 280-331016/1-A	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16087.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/27/2016 1943	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Acenaphthene	10	U	10	330
Acenaphthylene	17	U	17	330
Anthracene	17	U	17	330
Benzo[a]anthracene	20	U	20	330
Benzo[a]pyrene	20	U	20	330
Benzo[b]fluoranthene	26	U	26	330
Benzo[ghi]perylene	16	U	16	330
Benzo[k]fluoranthene	40	U	40	330
Bis(2-chloroethoxy)methane	23	U	23	330
Bis(2-chloroethyl)ether	17	U	17	330
bis (2-chloroisopropyl) ether	23	U	23	330
Bis(2-ethylhexyl) phthalate	46	U	46	330
4-Bromophenyl phenyl ether	19	U	19	330
Butyl benzyl phthalate	43	U	43	330
Carbazole	36	U	36	330
4-Chloroaniline	82	U	82	330
4-Chloro-3-methylphenol	66	U	66	330
2-Chloronaphthalene	10	U	10	330
2-Chlorophenol	21	U	21	330
4-Chlorophenyl phenyl ether	21	U	21	330
Chrysene	27	U	27	330
Dibenz(a,h)anthracene	19	U	19	330
Dibenzofuran	20	U	20	330
1,2-Dichlorobenzene	22	U	22	330
1,3-Dichlorobenzene	12	U	12	330
1,4-Dichlorobenzene	14	U	14	330
3,3'-Dichlorobenzidine	90	U	90	660
2,4-Dichlorophenol	10	U	10	330
Diethyl phthalate	26	U	26	330
2,4-Dimethylphenol	66	U	66	330
Dimethyl phthalate	23	U	23	330
Di-n-butyl phthalate	29	U	29	330
4,6-Dinitro-2-methylphenol	330	U	330	660
2,4-Dinitrophenol	330	U	330	830
2,4-Dinitrotoluene	66	U	66	330
2,6-Dinitrotoluene	28	U	28	330
Di-n-octyl phthalate	14	U	14	330
Fluoranthene	36	U	36	330
Fluorene	18	U	18	330
Hexachlorobenzene	29	U	29	330
Hexachlorobutadiene	10	U	10	330
Hexachlorocyclopentadiene	50	U	50	330
Hexachloroethane	21	U	21	330
Indeno[1,2,3-cd]pyrene	22	U	22	330
Isophorone	17	U	17	330

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-331016

Method: 8270C
Preparation: 3550C

Lab Sample ID:	MB 280-331016/1-A	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16087.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/27/2016 1943	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
2-Methylnaphthalene	19	U	19	330
2-Methylphenol	13	U	13	330
3 & 4 Methylphenol	33	U	33	330
Naphthalene	31	U	31	330
2-Nitroaniline	50	U	50	330
3-Nitroaniline	73	U	73	330
4-Nitroaniline	73	U	73	330
Nitrobenzene	22	U	22	330
2-Nitrophenol	10	U	10	330
4-Nitrophenol	97	U	97	660
N-Nitrosodi-n-propylamine	31	U	31	330
N-Nitrosodiphenylamine	21	U	21	330
Pentachlorophenol	330	U	330	660
Phenanthrene	17	U	17	330
Phenol	18	U	18	330
Pyrene	12	U	12	330
1,2,4-Trichlorobenzene	28	U	28	330
2,4,5-Trichlorophenol	10	U	10	330
2,4,6-Trichlorophenol	10	U	10	330
Tributyl phosphate	58	U	58	1600

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	86	33 - 135
2-Fluorophenol	85	39 - 135
Nitrobenzene-d5	84	32 - 135
Phenol-d5	86	39 - 135
Terphenyl-d14	101	30 - 135
2,4,6-Tribromophenol	63	24 - 135

Method Blank TICs- Batch: 280-331016

Cas Number	Analyte	RT	Est. Result (ug)	Qual
	Unknown	1.69	748	N J
994-05-8	Butane, 2-methoxy-2-methyl-	1.87	262	N J
	Unknown	3.27	3660	N J

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Lab Control Sample - Batch: 280-331016

Method: 8270C

Preparation: 3550C

Lab Sample ID:	LCS 280-331016/2-A	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16088.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/27/2016 2011	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	2670	2280	86	55 - 135	
Acenaphthylene	2670	2210	83	57 - 135	
Anthracene	2670	2410	90	56 - 135	
Benzo[a]anthracene	2670	2370	89	54 - 135	
Benzo[a]pyrene	2670	2480	93	54 - 135	
Benzo[b]fluoranthene	2670	2600	97	54 - 135	
Benzo[ghi]perylene	2670	2400	90	55 - 135	
Benzo[k]fluoranthene	2670	2580	97	54 - 135	
Bis(2-chloroethoxy)methane	2670	2180	82	47 - 135	
Bis(2-chloroethyl)ether	2670	2180	82	42 - 135	
bis (2-chloroisopropyl) ether	2670	2460	92	36 - 135	
Bis(2-ethylhexyl) phthalate	2670	2510	94	49 - 135	
4-Bromophenyl phenyl ether	2670	2220	83	57 - 135	
Butyl benzyl phthalate	2670	2530	95	49 - 135	
Carbazole	2670	2410	90	56 - 135	
4-Chloroaniline	2670	1850	69	28 - 135	
4-Chloro-3-methylphenol	2670	2470	93	55 - 135	
2-Chloronaphthalene	2670	2200	82	53 - 135	
2-Chlorophenol	2670	2140	80	47 - 135	
4-Chlorophenyl phenyl ether	2670	2260	85	57 - 135	
Chrysene	2670	2390	90	55 - 135	
Dibenz(a,h)anthracene	2670	2430	91	50 - 135	
Dibenzofuran	2670	2240	84	57 - 135	
1,2-Dichlorobenzene	2670	1990	75	48 - 135	
1,3-Dichlorobenzene	2670	1950	73	47 - 135	
1,4-Dichlorobenzene	2670	1990	75	47 - 135	
3,3'-Dichlorobenzidine	2670	1790	67	30 - 135	
2,4-Dichlorophenol	2670	2200	82	54 - 135	
Diethyl phthalate	2670	2530	95	57 - 135	
2,4-Dimethylphenol	2670	2340	88	51 - 135	
Dimethyl phthalate	2670	2400	90	56 - 135	
Di-n-butyl phthalate	2670	2530	95	53 - 135	
4,6-Dinitro-2-methylphenol	5330	4170	78	50 - 135	
2,4-Dinitrophenol	5330	3420	64	39 - 135	
2,4-Dinitrotoluene	2670	2390	90	59 - 135	
2,6-Dinitrotoluene	2670	2290	86	58 - 135	
Di-n-octyl phthalate	2670	2330	87	46 - 135	
Fluoranthene	2670	2350	88	57 - 135	
Fluorene	2670	2310	87	57 - 135	
Hexachlorobenzene	2670	2130	80	57 - 135	
Hexachlorobutadiene	2670	2090	78	47 - 135	
Hexachlorocyclopentadiene	2670	1710	64	35 - 135	
Hexachloroethane	2670	1980	74	45 - 135	
Indeno[1,2,3-cd]pyrene	2670	2040	77	50 - 135	
Isophorone	2670	2190	82	49 - 135	
2-Methylnaphthalene	2670	2200	82	55 - 135	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Lab Control Sample - Batch: 280-331016

Method: 8270C

Preparation: 3550C

Lab Sample ID:	LCS 280-331016/2-A	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16088.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/27/2016 2011	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
2-Methylphenol	2670	2230	84	47 - 135	
3 & 4 Methylphenol	2670	2220	83	47 - 135	
Naphthalene	2670	2160	81	50 - 135	
2-Nitroaniline	2670	2670	100	47 - 135	
3-Nitroaniline	2670	2210	83	39 - 135	
4-Nitroaniline	2670	2330	87	50 - 135	
Nitrobenzene	2670	2360	89	45 - 135	
2-Nitrophenol	2670	2070	78	48 - 135	
4-Nitrophenol	5330	5720	107	52 - 135	
N-Nitrosodi-n-propylamine	2670	2300	86	42 - 135	
N-Nitrosodiphenylamine	2670	2430	91	50 - 135	
Pentachlorophenol	5330	3580	67	37 - 135	
Phenanthere	2670	2410	90	57 - 135	
Phenol	2670	2260	85	45 - 135	
Pyrene	2670	2460	92	55 - 135	
1,2,4-Trichlorobenzene	2670	2050	77	49 - 135	
2,4,5-Trichlorophenol	2670	2210	83	55 - 135	
2,4,6-Trichlorophenol	2670	2240	84	55 - 135	
Tributyl phosphate	1330	1290	97	30 - 150	J
Surrogate		% Rec		Acceptance Limits	
2-Fluorobiphenyl		83		33 - 135	
2-Fluorophenol		83		39 - 135	
Nitrobenzene-d5		84		32 - 135	
Phenol-d5		82		39 - 135	
Terphenyl-d14		92		30 - 135	
2,4,6-Tribromophenol		76		24 - 135	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-331016

Method: 8270C
Preparation: 3550C

MS Lab Sample ID:	280-84721-6	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16094.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	06/27/2016 2304			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-84721-6	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16095.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	06/27/2016 2332			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	MS	MSD	% Rec.	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	85	89		55 - 135	4	30		
Acenaphthylene	82	90		57 - 135	8	30		
Anthracene	94	94		56 - 135	0	30		
Benzo[a]anthracene	92	95		54 - 135	2	30		
Benzo[a]pyrene	93	97		54 - 135	4	30		
Benzo[b]fluoranthene	95	100		54 - 135	5	30		
Benzo[ghi]perylene	89	93		55 - 135	4	30		
Benzo[k]fluoranthene	98	102		54 - 135	4	30		
Bis(2-chloroethoxy)methane	81	85		47 - 135	5	30		
Bis(2-chloroethyl)ether	84	87		42 - 135	3	30		
bis (2-chloroisopropyl) ether	95	100		36 - 135	5	30		
Bis(2-ethylhexyl) phthalate	102	104		49 - 135	1	30		
4-Bromophenyl phenyl ether	87	86		57 - 135	2	30		
Butyl benzyl phthalate	105	106		49 - 135	1	30		
Carbazole	95	96		56 - 135	0	30		
4-Chloroaniline	55	56		28 - 135	1	30		
4-Chloro-3-methylphenol	93	100		55 - 135	6	30		
2-Chloronaphthalene	81	86		53 - 135	6	30		
2-Chlorophenol	81	86		47 - 135	5	30		
4-Chlorophenyl phenyl ether	86	91		57 - 135	6	30		
Chrysene	93	95		55 - 135	1	30		
Dibenz(a,h)anthracene	93	96		50 - 135	3	30		
Dibenzofuran	86	93		57 - 135	7	30		
1,2-Dichlorobenzene	77	80		48 - 135	4	30		
1,3-Dichlorobenzene	76	79		47 - 135	2	30		
1,4-Dichlorobenzene	76	80		47 - 135	4	30		
3,3'-Dichlorobenzidine	56	56		30 - 135	2	30		
2,4-Dichlorophenol	80	85		54 - 135	6	30		
Diethyl phthalate	95	100		57 - 135	4	30		
2,4-Dimethylphenol	85	92		51 - 135	7	30		
Dimethyl phthalate	90	94		56 - 135	4	30		
Di-n-butyl phthalate	99	99		53 - 135	1	30		
4,6-Dinitro-2-methylphenol	75	71		50 - 135	6	30		

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-331016

**Method: 8270C
Preparation: 3550C**

MS Lab Sample ID:	280-84721-6	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16094.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.8 g
Analysis Date:	06/27/2016 2304			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

MSD Lab Sample ID:	280-84721-6	Analysis Batch:	280-331553	Instrument ID:	SMS_B2
Client Matrix:	Solid	Prep Batch:	280-331016	Lab File ID:	B2-16095.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	31.0 g
Analysis Date:	06/27/2016 2332			Final Weight/Volume:	1 mL
Prep Date:	06/23/2016 1007			Injection Volume:	0.5 uL
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
2,4-Dinitrophenol	51	46	39 - 135	11	30		
2,4-Dinitrotoluene	93	97	59 - 135	4	30		
2,6-Dinitrotoluene	89	95	58 - 135	6	30		
Di-n-octyl phthalate	100	104	46 - 135	3	30		
Fluoranthene	91	92	57 - 135	0	30		
Fluorene	88	94	57 - 135	6	30		
Hexachlorobenzene	85	85	57 - 135	1	30		
Hexachlorobutadiene	77	81	47 - 135	5	30		
Hexachlorocyclopentadiene	58	65	35 - 135	10	30		
Hexachloroethane	75	79	45 - 135	4	30		
Indeno[1,2,3-cd]pyrene	80	83	50 - 135	3	30		
Isophorone	83	86	49 - 135	3	30		
2-Methylnaphthalene	82	87	55 - 135	5	30		
2-Methylphenol	84	90	47 - 135	6	30		
3 & 4 Methylphenol	85	93	47 - 135	8	30		
Naphthalene	82	85	50 - 135	3	30		
2-Nitroaniline	99	107	47 - 135	7	30		
3-Nitroaniline	78	78	39 - 135	0	30		
4-Nitroaniline	85	90	50 - 135	6	30		
Nitrobenzene	86	92	45 - 135	6	30		
2-Nitrophenol	79	82	48 - 135	4	30		
4-Nitrophenol	108	113	52 - 135	5	30		
N-Nitrosodi-n-propylamine	89	95	42 - 135	6	30		
N-Nitrosodiphenylamine	94	95	50 - 135	0	30		
Pentachlorophenol	68	70	37 - 135	3	30		
Phenanthrene	95	95	57 - 135	1	30		
Phenol	86	90	45 - 135	5	30		
Pyrene	98	102	55 - 135	4	30		
1,2,4-Trichlorobenzene	76	79	49 - 135	3	30		
2,4,5-Trichlorophenol	85	90	55 - 135	5	30		
2,4,6-Trichlorophenol	82	88	55 - 135	6	30		
Tributyl phosphate	102	108	30 - 150	6	50	J	J
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	82	87	33 - 135
2-Fluorophenol	84	87	39 - 135
Nitrobenzene-d5	85	87	32 - 135
Phenol-d5	84	89	39 - 135
Terphenyl-d14	98	100	30 - 135
2,4,6-Tribromophenol	77	81	24 - 135

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-331016

**Method: 8270C
Preparation: 3550C**

MS Lab Sample ID: 280-84721-6
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 06/27/2016 2304
Prep Date: 06/23/2016 1007
Leach Date: N/A

Units: ug/Kg

MSD Lab Sample ID: 280-84721-6
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 06/27/2016 2332
Prep Date: 06/23/2016 1007
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Acenaphthene	10 U	2720	2710	2320	2420
Acenaphthylene	17 U	2720	2710	2250	2420
Anthracene	17 U	2720	2710	2560	2560
Benzo[a]anthracene	20 U	2720	2710	2500	2560
Benzo[a]pyrene	20 U	2720	2710	2530	2630
Benzo[b]fluoranthene	26 U	2720	2710	2580	2720
Benzo[ghi]perylene	16 U	2720	2710	2440	2530
Benzo[k]fluoranthene	40 U	2720	2710	2660	2770
Bis(2-chloroethoxy)methane	23 U	2720	2710	2200	2310
Bis(2-chloroethyl)ether	17 U	2720	2710	2290	2360
bis (2-chloroisopropyl) ether	23 U	2720	2710	2590	2710
Bis(2-ethylhexyl) phthalate	46 U	2720	2710	2790	2820
4-Bromophenyl phenyl ether	19 U	2720	2710	2370	2340
Butyl benzyl phthalate	43 U	2720	2710	2850	2870
Carbazole	36 U	2720	2710	2590	2580
4-Chloroaniline	82 U	2720	2710	1490	1510
4-Chloro-3-methylphenol	66 U	2720	2710	2540	2690
2-Chloronaphthalene	10 U	2720	2710	2200	2330
2-Chlorophenol	21 U	2720	2710	2210	2320
4-Chlorophenyl phenyl ether	21 U	2720	2710	2330	2460
Chrysene	27 U	2720	2710	2550	2570
Dibenz(a,h)anthracene	19 U	2720	2710	2520	2590
Dibenzofuran	20 U	2720	2710	2330	2510
1,2-Dichlorobenzene	22 U	2720	2710	2090	2170
1,3-Dichlorobenzene	12 U	2720	2710	2080	2130
1,4-Dichlorobenzene	14 U	2720	2710	2070	2160
3,3'-Dichlorobenzidine	90 U	2720	2710	1540	1510
2,4-Dichlorophenol	10 U	2720	2710	2180	2310
Diethyl phthalate	26 U	2720	2710	2600	2700
2,4-Dimethylphenol	66 U	2720	2710	2320	2490
Dimethyl phthalate	23 U	2720	2710	2460	2550
Di-n-butyl phthalate	29 U	2720	2710	2700	2680
4,6-Dinitro-2-methylphenol	330 U	5450	5410	4070	3840
2,4-Dinitrophenol	330 U	5450	5410	2800	2500
2,4-Dinitrotoluene	66 U	2720	2710	2530	2620
2,6-Dinitrotoluene	28 U	2720	2710	2420	2560
Di-n-octyl phthalate	14 U	2720	2710	2710	2800
Fluoranthene	36 U	2720	2710	2490	2500
Fluorene	18 U	2720	2710	2390	2540
Hexachlorobenzene	29 U	2720	2710	2320	2300
Hexachlorobutadiene	10 U	2720	2710	2080	2190
Hexachlorocyclopentadiene	50 U	2720	2710	1590	1760
Hexachloroethane	21 U	2720	2710	2050	2140

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-331016

**Method: 8270C
Preparation: 3550C**

MS Lab Sample ID: 280-84721-6
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 06/27/2016 2304
Prep Date: 06/23/2016 1007
Leach Date: N/A

Units: ug/Kg

MSD Lab Sample ID: 280-84721-6
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 06/27/2016 2332
Prep Date: 06/23/2016 1007
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Indeno[1,2,3-cd]pyrene	22 U	2720	2710	2180	2260
Isophorone	17 U	2720	2710	2260	2330
2-Methylnaphthalene	19 U	2720	2710	2230	2340
2-Methylphenol	13 U	2720	2710	2290	2430
3 & 4 Methylphenol	33 U	2720	2710	2330	2510
Naphthalene	31 U	2720	2710	2220	2300
2-Nitroaniline	50 U	2720	2710	2700	2890
3-Nitroaniline	73 U	2720	2710	2110	2120
4-Nitroaniline	72 U	2720	2710	2310	2450
Nitrobenzene	22 U	2720	2710	2350	2490
2-Nitrophenol	10 U	2720	2710	2150	2230
4-Nitrophenol	97 U	5450	5410	5860	6140
N-Nitrosodi-n-propylamine	31 U	2720	2710	2430	2570
N-Nitrosodiphenylamine	21 U	2720	2710	2570	2570
Pentachlorophenol	330 U	5450	5410	3690	3790
Phenanthrene	17 U	2720	2710	2600	2570
Phenol	18 U	2720	2710	2340	2450
Pyrene	12 U	2720	2710	2660	2750
1,2,4-Trichlorobenzene	28 U	2720	2710	2080	2140
2,4,5-Trichlorophenol	10 U	2720	2710	2310	2420
2,4,6-Trichlorophenol	10 U	2720	2710	2250	2390
Tributyl phosphate	57 U	1360	1350	1390 J	1470 J

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-330919

Method: 8082
Preparation: 3550C

Lab Sample ID:	MB 280-330919/1-A	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Client Matrix:	Solid	Prep Batch:	280-330919	Lab File ID:	06261604.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/26/2016 1119	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/22/2016 1512			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Result	Qual	MDL	RL
Aroclor 1016	2.8	U	2.8	10
Aroclor 1221	8.0	U	8.0	17
Aroclor 1232	2.0	U	2.0	10
Aroclor 1242	4.7	U	4.7	10
Aroclor 1248	4.7	U	4.7	10
Aroclor 1254	2.6	U	2.6	10
Aroclor 1260	2.6	U	2.6	10

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	101	59 - 130
Tetrachloro-m-xylene	101	53 - 128

Lab Control Sample - Batch: 280-330919

Method: 8082
Preparation: 3550C

Lab Sample ID:	LCS 280-330919/2-A	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Client Matrix:	Solid	Prep Batch:	280-330919	Lab File ID:	06261605.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/26/2016 1140	Units:	ug/Kg	Final Weight/Volume:	5 mL
Prep Date:	06/22/2016 1512			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aroclor 1016	33.3	37.5	112	54 - 132	
Aroclor 1260	33.3	38.9	117	62 - 129	

Surrogate	% Rec	Acceptance Limits
Decachlorobiphenyl	105	59 - 130
Tetrachloro-m-xylene	110	53 - 128

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-330919

**Method: 8082
Preparation: 3550C**

MS Lab Sample ID:	280-84721-3	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Client Matrix:	Solid	Prep Batch:	280-330919	Lab File ID:	06261608.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	32.1 g
Analysis Date:	06/26/2016 1245			Final Weight/Volume:	5 mL
Prep Date:	06/22/2016 1512			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

MSD Lab Sample ID:	280-84721-3	Analysis Batch:	280-331325	Instrument ID:	SGC_P3
Client Matrix:	Solid	Prep Batch:	280-330919	Lab File ID:	06261609.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30.7 g
Analysis Date:	06/26/2016 1307			Final Weight/Volume:	5 mL
Prep Date:	06/22/2016 1512			Injection Volume:	1 uL
Leach Date:	N/A			Column ID:	PRIMARY

Analyte	MS	% Rec.		RPD	RPD Limit	MS Qual	MSD Qual
		MS	MSD				
Aroclor 1016	108	119	54 - 132	15	26		
Aroclor 1260	109	112	62 - 129	7	26		
Surrogate		MS % Rec		MSD % Rec		Acceptance Limits	
Decachlorobiphenyl	90		95			59 - 130	
Tetrachloro-m-xylene	96		96			53 - 128	

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-330919

**Method: 8082
Preparation: 3550C**

MS Lab Sample ID:	280-84721-3	Units:	ug/Kg	MSD Lab Sample ID:	280-84721-3
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	06/26/2016 1245			Analysis Date:	06/26/2016 1307
Prep Date:	06/22/2016 1512			Prep Date:	06/22/2016 1512
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike	MSD Spike	MS	MSD
		Amount	Amount	Result/Qual	Result/Qual
Aroclor 1016	2.8	U	31.9	33.4	34.4
Aroclor 1260	2.6	U	31.9	33.4	35.0

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-330861

Method: NWTPH-Dx
Preparation: 3550C

Lab Sample ID:	MB 280-330861/1-A	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-330861	Lab File ID:	005F0501.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/25/2016 1223	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
C10-C36	1980	J	1000	4000
C10-C28	1290	J	680	4000
Surrogate	% Rec		Acceptance Limits	
o-Terphenyl	94		49 - 115	

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-330861

Method: NWTPH-Dx
Preparation: 3550C

LCS Lab Sample ID:	LCS 280-330861/2-A	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-330861	Lab File ID:	006F0601.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/25/2016 1248	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-330861/3-A	Analysis Batch:	280-331327	Instrument ID:	SGC_U2a
Client Matrix:	Solid	Prep Batch:	280-330861	Lab File ID:	007F0701.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	30 g
Analysis Date:	06/25/2016 1313	Units:	ug/Kg	Final Weight/Volume:	1 mL
Prep Date:	06/22/2016 1132			Injection Volume:	1 uL
Leach Date:	N/A				

Analyte	% Rec.		Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD					
C10-C36	100	97	57 - 115	4	23		
C10-C28	100	97	53 - 115	3	23		
Surrogate	LCS % Rec		LCSD % Rec		Acceptance Limits		
o-Terphenyl	104		99		49 - 115		

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-330861

Method: NWTPH-Dx
Preparation: 3550C

LCS Lab Sample ID: LCS 280-330861/2-A Units: ug/Kg
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 06/25/2016 1248
 Prep Date: 06/22/2016 1132
 Leach Date: N/A

LCSD Lab Sample ID: LCSD 280-330861/3-A
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 06/25/2016 1313
 Prep Date: 06/22/2016 1132
 Leach Date: N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
C10-C36	66700	66700	66800	64400
C10-C28	66700	66700	66500	64400

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-330861

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID: 280-84721-2
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 06/25/2016 1402
 Prep Date: 06/22/2016 1132
 Leach Date: N/A

Analysis Batch: 280-331327
 Prep Batch: 280-330861
 Leach Batch: N/A
 Instrument ID: SGC_U2a
 Lab File ID: 009F0901.D
 Initial Weight/Volume: 30.8 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

MSD Lab Sample ID: 280-84721-2
 Client Matrix: Solid
 Dilution: 1.0
 Analysis Date: 06/25/2016 1427
 Prep Date: 06/22/2016 1132
 Leach Date: N/A

Analysis Batch: 280-331327
 Prep Batch: 280-330861
 Leach Batch: N/A
 Instrument ID: SGC_U2a
 Lab File ID: 010F1001.D
 Initial Weight/Volume: 32.3 g
 Final Weight/Volume: 1 mL
 Injection Volume: 1 uL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
C10-C36	78	79	57 - 115	3	23		
C10-C28	80	83	56 - 115	1	23		
Surrogate	MS % Rec		MSD % Rec		Acceptance Limits		
o-Terphenyl	96		93		49 - 115		

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike/ Matrix Spike Duplicate Recovery Report - Batch: 280-330861

Method: NWTPH-Dx
Preparation: 3550C

MS Lab Sample ID: 280-84721-2
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 06/25/2016 1402
Prep Date: 06/22/2016 1132
Leach Date: N/A

Units: ug/Kg

MSD Lab Sample ID: 280-84721-2
Client Matrix: Solid
Dilution: 1.0
Analysis Date: 06/25/2016 1427
Prep Date: 06/22/2016 1132
Leach Date: N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
C10-C36	11000	66900	63800	63000	61400
C10-C28	3900	66900	63800	57400	57000

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-330763/1-A	Analysis Batch:	280-331023	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/23/2016 0509	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	1.6	U	1.6	5.0
Antimony	0.38	U	0.38	0.60
Arsenic	0.66	U	0.66	1.0
Barium	0.118	B	0.076	0.50
Beryllium	0.033	U	0.033	0.20
Boron	0.98	U	0.98	2.0
Calcium	18.39	B	14.1	50.0
Chromium	0.058	U	0.058	0.20
Cobalt	0.10	U	0.10	1.0
Copper	0.22	U	0.22	1.0
Iron	3.8	U	3.8	5.0
Lithium	0.91	U	0.91	2.5
Magnesium	6.38	B	3.7	20.0
Manganese	0.10	U	0.10	1.0
Molybdenum	0.26	U	0.26	2.0
Nickel	0.12	U	0.12	4.0
Potassium	41.0	U	41.0	300
Selenium	0.86	U	0.86	1.0
Silicon	5.7	U	5.7	10.0
Silver	0.16	U	0.16	0.20
Sodium	59.0	U	59.0	120
Strontium	0.0520	B	0.036	1.0
Tin	0.975	B	0.91	10.0
Vanadium	0.094	U	0.094	2.0
Zirconium	0.35	U	0.35	2.5

Method Blank - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 280-330763/1-A	Analysis Batch:	280-331187	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/24/2016 0502	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Cadmium	0.041	U	0.041	0.20
Lead	0.27	U	0.27	0.50
Zinc	0.40	U	0.40	1.0

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Lab Control Sample - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-330763/2-A	Analysis Batch:	280-331023	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/23/2016 0512	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	200	185.2	93	82 - 116	
Antimony	50.0	48.29	97	82 - 110	
Arsenic	100	98.88	99	85 - 110	
Barium	200	188.9	94	87 - 112	
Beryllium	5.00	4.78	96	84 - 114	
Boron	100	92.56	93	80 - 120	
Calcium	5000	4734	95	82 - 114	
Chromium	20.0	19.70	99	84 - 114	
Cobalt	50.0	45.44	91	87 - 110	
Copper	25.0	24.70	99	88 - 110	
Iron	100	99.77	100	87 - 120	
Lithium	100	96.06	96	90 - 110	
Magnesium	5000	4825	96	90 - 110	
Manganese	50.0	50.02	100	88 - 110	
Molybdenum	100	90.72	91	86 - 110	
Nickel	50.0	47.08	94	87 - 110	
Potassium	5000	5116	102	89 - 110	
Selenium	200	187.0	94	83 - 110	
Silicon	1000	259.2	26	10 - 70	
Silver	5.00	5.01	100	87 - 114	
Sodium	5000	5400	108	90 - 112	
Strontium	100	96.20	96	89 - 110	
Tin	200	186.5	93	84 - 110	
Vanadium	50.0	47.68	95	88 - 110	
Zirconium	50.0	51.95	104	90 - 110	

Lab Control Sample - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCS 280-330763/2-A	Analysis Batch:	280-331187	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/24/2016 0505	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	10.0	9.87	99	87 - 110	
Lead	50.0	48.78	98	86 - 110	
Zinc	50.0	44.80	90	76 - 114	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331023	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.186 g
Analysis Date:	06/23/2016 0525	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	8350	174	10220	1074	50 - 200	4
Antimony	0.30	U	43.4	45	20 - 200	
Arsenic	3.4		86.9	74.27	82	76 - 111
Barium	74.1		174	212.5	80	52 - 159
Boron	0.78	U	86.9	65.74	76	80 - 120
Calcium	4550		4340	8416	89	43 - 165
Chromium	11.2		17.4	25.90	85	70 - 200
Copper	13.3		21.7	30.17	78	37 - 187
Iron	23900		86.9	24150	278	70 - 200
Lithium	7.6		86.9	75.97	79	84 - 109
Magnesium	4500		4340	8114	83	64 - 145
Manganese	355		43.4	418.9	147	40 - 200
Molybdenum	0.21	U	86.9	63.52	73	75 - 103
Nickel	9.9		43.4	42.29	74	61 - 126
Potassium	1390		4340	5212	88	56 - 172
Selenium	0.69	U	174	134.4	77	76 - 104
Silicon	342		869	486.4	17	20 - 200
Silver	0.13	U	4.34	3.66	84	75 - 141
Sodium	223		4340	4344	95	78 - 111
Strontium	21.3		86.9	91.43	81	81 - 125
Tin	0.73	U	174	125.2	72	77 - 126
Vanadium	54.6		43.4	93.41	89	50 - 169
Zirconium	22.2		43.4	60.50	88	75 - 125

Matrix Spike - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331187	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.186 g
Analysis Date:	06/24/2016 0518	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Beryllium	0.14	B	4.34	3.96	88	72 - 105
Cobalt	9.2		43.4	48.25	90	72 - 106
Zinc	47.7		43.4	82.38	80	70 - 200

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Matrix Spike - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331281	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.186 g
Analysis Date:	06/24/2016 1551	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Cadmium	0.12	B	8.69	7.29	83	40 - 130
Lead	6.6		43.4	41.09	79	70 - 200

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Duplicate - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331023	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26C062216.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.354 g
Analysis Date:	06/23/2016 0523	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	8350		8476	1	40	
Antimony	0.30	U	0.358	NC	40	B
Arsenic	3.4		3.48	0.8	30	
Barium	74.1		74.23	0.2	30	
Boron	0.78	U	0.75	NC	30	U
Calcium	4550		4081	11	30	
Chromium	11.2		10.41	7	40	
Copper	13.3		13.38	0.4	30	
Iron	23900		24150	1	40	
Lithium	7.6		7.53	0.8	30	
Magnesium	4500		4542	0.9	30	
Manganese	355		357.7	0.7	40	
Molybdenum	0.21	U	0.20	NC	30	U
Nickel	9.9		10.06	1	30	
Potassium	1390		1372	1	40	
Selenium	0.69	U	0.661	NC	30	B
Silicon	342		340.9	0.4	40	
Silver	0.13	U	0.12	NC	30	U
Sodium	223		238.8	7	30	
Strontium	21.3		21.16	0.8	30	
Tin	0.73	U	0.69	NC	30	U
Vanadium	54.6		56.89	4	30	
Zirconium	22.2		22.99	4	30	

Duplicate - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331187	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26a062316c.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.354 g
Analysis Date:	06/24/2016 0515	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Beryllium	0.14	B	0.179	27	30	B
Cobalt	9.2		9.17	0.1	30	
Zinc	47.7		47.97	0.6	40	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Duplicate - Batch: 280-330763

Method: 6010B
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331281	Instrument ID:	MT_026
Client Matrix:	Solid	Prep Batch:	280-330763	Lab File ID:	26a062416a.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.354 g
Analysis Date:	06/24/2016 1548	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Cadmium	0.12	B	0.125	0	30	B
Lead	6.6		6.53	2	40	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-330762

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 280-330762/1-A	Analysis Batch:	280-331198	Instrument ID:	MT_078
Client Matrix:	Solid	Prep Batch:	280-330762	Lab File ID:	121_BLK.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/23/2016 2258	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Uranium	0.00210	B	0.0016	0.10

Lab Control Sample - Batch: 280-330762

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCS 280-330762/2-A	Analysis Batch:	280-331198	Instrument ID:	MT_078
Client Matrix:	Solid	Prep Batch:	280-330762	Lab File ID:	122LCS.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 g
Analysis Date:	06/23/2016 2302	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Uranium	20.0	20.12	101	85 - 123	

Matrix Spike - Batch: 280-330762

Method: 6020
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331198	Instrument ID:	MT_078
Client Matrix:	Solid	Prep Batch:	280-330762	Lab File ID:	127SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.141 g
Analysis Date:	06/23/2016 2321	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Uranium	0.55	18.1	17.07	91	85 - 123	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Duplicate - Batch: 280-330762

Method: 6020
Preparation: 3050B

Lab Sample ID:	280-84721-2	Analysis Batch:	280-331198	Instrument ID:	MT_078
Client Matrix:	Solid	Prep Batch:	280-330762	Lab File ID:	126SMPL.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.219 g
Analysis Date:	06/23/2016 2317	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	06/22/2016 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Uranium	0.55	0.614	11	20	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Method Blank - Batch: 280-330931

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 280-330931/1-A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	06/23/2016 1853	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	0.0055	U	0.0055	0.017

Lab Control Sample - Batch: 280-330931

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCS 280-330931/2-A	Analysis Batch:	280-331158	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	06/23/2016 1856	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.417	0.442	106	87 - 111	

Matrix Spike - Batch: 280-330931

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-84721-1	Analysis Batch:	280-331158	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.53 g
Analysis Date:	06/23/2016 1908	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.0059	U	0.472	0.498	106	87 - 111

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Duplicate - Batch: 280-330931

Method: 7471A
Preparation: 7471A

Lab Sample ID:	280-84721-1	Analysis Batch:	280-331158	Instrument ID:	MT_034
Client Matrix:	Solid	Prep Batch:	280-330931	Lab File ID:	160623ba.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.58 g
Analysis Date:	06/23/2016 1906	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	06/23/2016 1155				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Mercury	0.0059	U	0.0057	NC	20	U

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Lab Control Sample/ Lab Control Sample Duplicate Recovery Report - Batch: 280-331098

Method: 9045C

Preparation: N/A

LCS Lab Sample ID: LCS 280-331084/1-A	Analysis Batch: 280-331098	Instrument ID:	No Equipment Assigned
Client Matrix: Solid	Prep Batch: N/A	Lab File ID:	N/A
Dilution: 1.0	Leach Batch: 280-331084	Initial Weight/Volume:	1 mL
Analysis Date: 06/23/2016 1523	Units: SU	Final Weight/Volume:	1 mL
Prep Date: N/A			
Leach Date: 06/23/2016 1307			

LCSD Lab Sample ID: LCSD 280-331084/2-A	Analysis Batch: 280-331098	Instrument ID:	No Equipment Assigned
Client Matrix: Solid	Prep Batch: N/A	Lab File ID:	N/A
Dilution: 1.0	Leach Batch: 280-331084	Initial Weight/Volume:	1 mL
Analysis Date: 06/23/2016 1523	Units: SU	Final Weight/Volume:	1 mL
Prep Date: N/A			
Leach Date: 06/23/2016 1307			

Analyte	% Rec.		RPD	RPD Limit	LCS Qual	LCSD Qual
	LCS	LCSD				
pH adj. to 25 deg C-Soluble	100	100	97 - 103	0	5	

Laboratory Control/ Laboratory Duplicate Data Report - Batch: 280-331098

Method: 9045C

Preparation: N/A

LCS Lab Sample ID: LCS 280-331084/1-A	Units: SU	LCSD Lab Sample ID: LCSD 280-331084/2-A
Client Matrix: Solid		Client Matrix: Solid
Dilution: 1.0		Dilution: 1.0
Analysis Date: 06/23/2016 1523		Analysis Date: 06/23/2016 1523
Prep Date: N/A		Prep Date: N/A
Leach Date: 06/23/2016 1307		Leach Date: 06/23/2016 1307

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
pH adj. to 25 deg C-Soluble	7.00	7.00	7.020	6.990

Duplicate - Batch: 280-331098

Method: 9045C

Preparation: N/A

Lab Sample ID: 280-84721-2	Analysis Batch: 280-331098	Instrument ID:	No Equipment Assigned
Client Matrix: Solid	Prep Batch: N/A	Lab File ID:	N/A
Dilution: 1.0	Leach Batch: 280-331084	Initial Weight/Volume:	1 mL
Analysis Date: 06/23/2016 1523	Units: SU	Final Weight/Volume:	1 mL
Prep Date: N/A			
Leach Date: 06/23/2016 1307			

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH adj. to 25 deg C-Soluble	8.77	8.800	0.3	5	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

Duplicate - Batch: 280-330889

Method: D-2216

Preparation: N/A

Lab Sample ID:	280-84721-1	Analysis Batch:	280-330889	Instrument ID:	No Equipment Assigned
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/22/2016 1108	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	0.10	U	0.10	NC	20

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS Semi VOA					
Prep Batch: 280-331016					
LCS 280-331016/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-331016/1-A	Method Blank	T	Solid	3550C	
280-84721-2	J1V902	T	Solid	3550C	
280-84721-3	J1V903	T	Solid	3550C	
280-84721-4	J1V904	T	Solid	3550C	
280-84721-5	J1V905	T	Solid	3550C	
280-84721-6	J1V906	T	Solid	3550C	
280-84721-6MS	Matrix Spike	T	Solid	3550C	
280-84721-6MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-84721-7	J1V907	T	Solid	3550C	
280-84721-8	J1V908	T	Solid	3550C	
280-84721-9	J1V909	T	Solid	3550C	
280-84721-10	J1V910	T	Solid	3550C	
280-84721-11	J1V911	T	Solid	3550C	
280-84721-12	J1V912	T	Solid	3550C	
280-84721-13	J1V913	T	Solid	3550C	
280-84721-14	J1V914	T	Solid	3550C	
Analysis Batch: 280-331553					
LCS 280-331016/2-A	Lab Control Sample	T	Solid	8270C	280-331016
MB 280-331016/1-A	Method Blank	T	Solid	8270C	280-331016
280-84721-2	J1V902	T	Solid	8270C	280-331016
280-84721-3	J1V903	T	Solid	8270C	280-331016
280-84721-4	J1V904	T	Solid	8270C	280-331016
280-84721-5	J1V905	T	Solid	8270C	280-331016
280-84721-6	J1V906	T	Solid	8270C	280-331016
280-84721-6MS	Matrix Spike	T	Solid	8270C	280-331016
280-84721-6MSD	Matrix Spike Duplicate	T	Solid	8270C	280-331016
280-84721-7	J1V907	T	Solid	8270C	280-331016
280-84721-8	J1V908	T	Solid	8270C	280-331016
280-84721-9	J1V909	T	Solid	8270C	280-331016
280-84721-10	J1V910	T	Solid	8270C	280-331016
280-84721-11	J1V911	T	Solid	8270C	280-331016
280-84721-12	J1V912	T	Solid	8270C	280-331016
280-84721-13	J1V913	T	Solid	8270C	280-331016
280-84721-14	J1V914	T	Solid	8270C	280-331016

Report Basis

T = Total

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Prep Batch: 280-330861					
LCS 280-330861/2-A	Lab Control Sample	T	Solid	3550C	
LCSD 280-330861/3-A	Lab Control Sample Duplicate	T	Solid	3550C	
MB 280-330861/1-A	Method Blank	T	Solid	3550C	
280-84721-2	J1V902	T	Solid	3550C	
280-84721-2MS	Matrix Spike	T	Solid	3550C	
280-84721-2MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-84721-3	J1V903	T	Solid	3550C	
280-84721-4	J1V904	T	Solid	3550C	
280-84721-5	J1V905	T	Solid	3550C	
280-84721-6	J1V906	T	Solid	3550C	
280-84721-7	J1V907	T	Solid	3550C	
280-84721-8	J1V908	T	Solid	3550C	
280-84721-9	J1V909	T	Solid	3550C	
280-84721-10	J1V910	T	Solid	3550C	
280-84721-11	J1V911	T	Solid	3550C	
280-84721-12	J1V912	T	Solid	3550C	
280-84721-13	J1V913	T	Solid	3550C	
280-84721-14	J1V914	T	Solid	3550C	
Prep Batch: 280-330919					
LCS 280-330919/2-A	Lab Control Sample	T	Solid	3550C	
MB 280-330919/1-A	Method Blank	T	Solid	3550C	
280-84721-2	J1V902	T	Solid	3550C	
280-84721-3	J1V903	T	Solid	3550C	
280-84721-3MS	Matrix Spike	T	Solid	3550C	
280-84721-3MSD	Matrix Spike Duplicate	T	Solid	3550C	
280-84721-4	J1V904	T	Solid	3550C	
280-84721-5	J1V905	T	Solid	3550C	
280-84721-6	J1V906	T	Solid	3550C	
280-84721-7	J1V907	T	Solid	3550C	
280-84721-8	J1V908	T	Solid	3550C	
280-84721-9	J1V909	T	Solid	3550C	
280-84721-10	J1V910	T	Solid	3550C	
280-84721-11	J1V911	T	Solid	3550C	
280-84721-12	J1V912	T	Solid	3550C	
280-84721-13	J1V913	T	Solid	3550C	
280-84721-14	J1V914	T	Solid	3550C	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC Semi VOA					
Analysis Batch:280-331325					
LCS 280-330919/2-A	Lab Control Sample	T	Solid	8082	280-330919
MB 280-330919/1-A	Method Blank	T	Solid	8082	280-330919
280-84721-2	J1V902	T	Solid	8082	280-330919
280-84721-3	J1V903	T	Solid	8082	280-330919
280-84721-3MS	Matrix Spike	T	Solid	8082	280-330919
280-84721-3MSD	Matrix Spike Duplicate	T	Solid	8082	280-330919
280-84721-4	J1V904	T	Solid	8082	280-330919
280-84721-5	J1V905	T	Solid	8082	280-330919
280-84721-6	J1V906	T	Solid	8082	280-330919
280-84721-7	J1V907	T	Solid	8082	280-330919
280-84721-8	J1V908	T	Solid	8082	280-330919
280-84721-9	J1V909	T	Solid	8082	280-330919
280-84721-10	J1V910	T	Solid	8082	280-330919
280-84721-11	J1V911	T	Solid	8082	280-330919
280-84721-12	J1V912	T	Solid	8082	280-330919
280-84721-13	J1V913	T	Solid	8082	280-330919
280-84721-14	J1V914	T	Solid	8082	280-330919
Analysis Batch:280-331327					
LCS 280-330861/2-A	Lab Control Sample	T	Solid	NWTPH-Dx	280-330861
LCSD 280-330861/3-A	Lab Control Sample Duplicate	T	Solid	NWTPH-Dx	280-330861
MB 280-330861/1-A	Method Blank	T	Solid	NWTPH-Dx	280-330861
280-84721-2	J1V902	T	Solid	NWTPH-Dx	280-330861
280-84721-2MS	Matrix Spike	T	Solid	NWTPH-Dx	280-330861
280-84721-2MSD	Matrix Spike Duplicate	T	Solid	NWTPH-Dx	280-330861
280-84721-3	J1V903	T	Solid	NWTPH-Dx	280-330861
280-84721-4	J1V904	T	Solid	NWTPH-Dx	280-330861
280-84721-5	J1V905	T	Solid	NWTPH-Dx	280-330861
280-84721-6	J1V906	T	Solid	NWTPH-Dx	280-330861
280-84721-7	J1V907	T	Solid	NWTPH-Dx	280-330861
280-84721-8	J1V908	T	Solid	NWTPH-Dx	280-330861
280-84721-9	J1V909	T	Solid	NWTPH-Dx	280-330861
280-84721-10	J1V910	T	Solid	NWTPH-Dx	280-330861
280-84721-11	J1V911	T	Solid	NWTPH-Dx	280-330861
280-84721-12	J1V912	T	Solid	NWTPH-Dx	280-330861
280-84721-13	J1V913	T	Solid	NWTPH-Dx	280-330861
280-84721-14	J1V914	T	Solid	NWTPH-Dx	280-330861

Report Basis

T = Total

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-330762					
LCS 280-330762/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-330762/1-A	Method Blank	T	Solid	3050B	
280-84721-1	J1V901	T	Solid	3050B	
280-84721-2	J1V902	T	Solid	3050B	
280-84721-2DU	Duplicate	T	Solid	3050B	
280-84721-2MS	Matrix Spike	T	Solid	3050B	
280-84721-3	J1V903	T	Solid	3050B	
280-84721-4	J1V904	T	Solid	3050B	
280-84721-5	J1V905	T	Solid	3050B	
280-84721-6	J1V906	T	Solid	3050B	
280-84721-7	J1V907	T	Solid	3050B	
280-84721-8	J1V908	T	Solid	3050B	
280-84721-9	J1V909	T	Solid	3050B	
280-84721-10	J1V910	T	Solid	3050B	
280-84721-11	J1V911	T	Solid	3050B	
280-84721-12	J1V912	T	Solid	3050B	
280-84721-13	J1V913	T	Solid	3050B	
280-84721-14	J1V914	T	Solid	3050B	
Prep Batch: 280-330763					
LCS 280-330763/2-A	Lab Control Sample	T	Solid	3050B	
MB 280-330763/1-A	Method Blank	T	Solid	3050B	
280-84721-1	J1V901	T	Solid	3050B	
280-84721-2	J1V902	T	Solid	3050B	
280-84721-2DU	Duplicate	T	Solid	3050B	
280-84721-2MS	Matrix Spike	T	Solid	3050B	
280-84721-3	J1V903	T	Solid	3050B	
280-84721-4	J1V904	T	Solid	3050B	
280-84721-5	J1V905	T	Solid	3050B	
280-84721-6	J1V906	T	Solid	3050B	
280-84721-7	J1V907	T	Solid	3050B	
280-84721-8	J1V908	T	Solid	3050B	
280-84721-9	J1V909	T	Solid	3050B	
280-84721-10	J1V910	T	Solid	3050B	
280-84721-11	J1V911	T	Solid	3050B	
280-84721-12	J1V912	T	Solid	3050B	
280-84721-13	J1V913	T	Solid	3050B	
280-84721-14	J1V914	T	Solid	3050B	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 280-330931					
LCS 280-330931/2-A	Lab Control Sample	T	Solid	7471A	
MB 280-330931/1-A	Method Blank	T	Solid	7471A	
280-84721-1	J1V901	T	Solid	7471A	
280-84721-1DU	Duplicate	T	Solid	7471A	
280-84721-1MS	Matrix Spike	T	Solid	7471A	
280-84721-2	J1V902	T	Solid	7471A	
280-84721-3	J1V903	T	Solid	7471A	
280-84721-4	J1V904	T	Solid	7471A	
280-84721-5	J1V905	T	Solid	7471A	
280-84721-6	J1V906	T	Solid	7471A	
280-84721-7	J1V907	T	Solid	7471A	
280-84721-8	J1V908	T	Solid	7471A	
280-84721-9	J1V909	T	Solid	7471A	
280-84721-10	J1V910	T	Solid	7471A	
280-84721-11	J1V911	T	Solid	7471A	
280-84721-12	J1V912	T	Solid	7471A	
280-84721-13	J1V913	T	Solid	7471A	
280-84721-14	J1V914	T	Solid	7471A	
Analysis Batch: 280-331023					
LCS 280-330763/2-A	Lab Control Sample	T	Solid	6010B	280-330763
MB 280-330763/1-A	Method Blank	T	Solid	6010B	280-330763
280-84721-1	J1V901	T	Solid	6010B	280-330763
280-84721-2	J1V902	T	Solid	6010B	280-330763
280-84721-2DU	Duplicate	T	Solid	6010B	280-330763
280-84721-2MS	Matrix Spike	T	Solid	6010B	280-330763
280-84721-3	J1V903	T	Solid	6010B	280-330763
280-84721-4	J1V904	T	Solid	6010B	280-330763
280-84721-5	J1V905	T	Solid	6010B	280-330763
280-84721-6	J1V906	T	Solid	6010B	280-330763
280-84721-7	J1V907	T	Solid	6010B	280-330763
280-84721-8	J1V908	T	Solid	6010B	280-330763
280-84721-9	J1V909	T	Solid	6010B	280-330763
280-84721-10	J1V910	T	Solid	6010B	280-330763
280-84721-11	J1V911	T	Solid	6010B	280-330763
280-84721-12	J1V912	T	Solid	6010B	280-330763
280-84721-13	J1V913	T	Solid	6010B	280-330763
280-84721-14	J1V914	T	Solid	6010B	280-330763

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-331158					
LCS 280-330931/2-A	Lab Control Sample	T	Solid	7471A	280-330931
MB 280-330931/1-A	Method Blank	T	Solid	7471A	280-330931
280-84721-1	J1V901	T	Solid	7471A	280-330931
280-84721-1DU	Duplicate	T	Solid	7471A	280-330931
280-84721-1MS	Matrix Spike	T	Solid	7471A	280-330931
280-84721-2	J1V902	T	Solid	7471A	280-330931
280-84721-3	J1V903	T	Solid	7471A	280-330931
280-84721-4	J1V904	T	Solid	7471A	280-330931
280-84721-5	J1V905	T	Solid	7471A	280-330931
280-84721-6	J1V906	T	Solid	7471A	280-330931
280-84721-7	J1V907	T	Solid	7471A	280-330931
280-84721-8	J1V908	T	Solid	7471A	280-330931
280-84721-9	J1V909	T	Solid	7471A	280-330931
280-84721-10	J1V910	T	Solid	7471A	280-330931
280-84721-11	J1V911	T	Solid	7471A	280-330931
280-84721-12	J1V912	T	Solid	7471A	280-330931
280-84721-13	J1V913	T	Solid	7471A	280-330931
280-84721-14	J1V914	T	Solid	7471A	280-330931
Analysis Batch:280-331187					
LCS 280-330763/2-A	Lab Control Sample	T	Solid	6010B	280-330763
MB 280-330763/1-A	Method Blank	T	Solid	6010B	280-330763
280-84721-1	J1V901	T	Solid	6010B	280-330763
280-84721-2	J1V902	T	Solid	6010B	280-330763
280-84721-2DU	Duplicate	T	Solid	6010B	280-330763
280-84721-2MS	Matrix Spike	T	Solid	6010B	280-330763
280-84721-3	J1V903	T	Solid	6010B	280-330763
280-84721-4	J1V904	T	Solid	6010B	280-330763
280-84721-5	J1V905	T	Solid	6010B	280-330763
280-84721-6	J1V906	T	Solid	6010B	280-330763
280-84721-7	J1V907	T	Solid	6010B	280-330763
280-84721-8	J1V908	T	Solid	6010B	280-330763
280-84721-9	J1V909	T	Solid	6010B	280-330763
280-84721-10	J1V910	T	Solid	6010B	280-330763
280-84721-11	J1V911	T	Solid	6010B	280-330763
280-84721-12	J1V912	T	Solid	6010B	280-330763
280-84721-13	J1V913	T	Solid	6010B	280-330763
280-84721-14	J1V914	T	Solid	6010B	280-330763

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:280-331198					
LCS 280-330762/2-A	Lab Control Sample	T	Solid	6020	280-330762
MB 280-330762/1-A	Method Blank	T	Solid	6020	280-330762
280-84721-1	J1V901	T	Solid	6020	280-330762
280-84721-2	J1V902	T	Solid	6020	280-330762
280-84721-2DU	Duplicate	T	Solid	6020	280-330762
280-84721-2MS	Matrix Spike	T	Solid	6020	280-330762
280-84721-3	J1V903	T	Solid	6020	280-330762
280-84721-4	J1V904	T	Solid	6020	280-330762
280-84721-5	J1V905	T	Solid	6020	280-330762
280-84721-6	J1V906	T	Solid	6020	280-330762
280-84721-7	J1V907	T	Solid	6020	280-330762
280-84721-8	J1V908	T	Solid	6020	280-330762
280-84721-9	J1V909	T	Solid	6020	280-330762
280-84721-10	J1V910	T	Solid	6020	280-330762
280-84721-11	J1V911	T	Solid	6020	280-330762
280-84721-12	J1V912	T	Solid	6020	280-330762
280-84721-13	J1V913	T	Solid	6020	280-330762
280-84721-14	J1V914	T	Solid	6020	280-330762
Analysis Batch:280-331281					
280-84721-2	J1V902	T	Solid	6010B	280-330763
280-84721-2DU	Duplicate	T	Solid	6010B	280-330763
280-84721-2MS	Matrix Spike	T	Solid	6010B	280-330763
280-84721-3	J1V903	T	Solid	6010B	280-330763
280-84721-4	J1V904	T	Solid	6010B	280-330763
280-84721-5	J1V905	T	Solid	6010B	280-330763
280-84721-6	J1V906	T	Solid	6010B	280-330763
280-84721-7	J1V907	T	Solid	6010B	280-330763
280-84721-8	J1V908	T	Solid	6010B	280-330763
280-84721-9	J1V909	T	Solid	6010B	280-330763
280-84721-10	J1V910	T	Solid	6010B	280-330763
280-84721-11	J1V911	T	Solid	6010B	280-330763
280-84721-12	J1V912	T	Solid	6010B	280-330763
280-84721-13	J1V913	T	Solid	6010B	280-330763
280-84721-14	J1V914	T	Solid	6010B	280-330763

Report Basis

T = Total

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-330889					
280-84721-1	J1V901	T	Solid	D-2216	
280-84721-1DU	Duplicate	T	Solid	D-2216	
280-84721-2	J1V902	T	Solid	D-2216	
280-84721-3	J1V903	T	Solid	D-2216	
280-84721-4	J1V904	T	Solid	D-2216	
280-84721-5	J1V905	T	Solid	D-2216	
280-84721-6	J1V906	T	Solid	D-2216	
280-84721-7	J1V907	T	Solid	D-2216	
280-84721-8	J1V908	T	Solid	D-2216	
280-84721-9	J1V909	T	Solid	D-2216	
280-84721-10	J1V910	T	Solid	D-2216	
280-84721-11	J1V911	T	Solid	D-2216	
280-84721-12	J1V912	T	Solid	D-2216	
280-84721-13	J1V913	T	Solid	D-2216	
280-84721-14	J1V914	T	Solid	D-2216	
Prep Batch: 280-331084					
LCS 280-331084/1-A	Lab Control Sample	S	Solid	DI Leach	
LCSD 280-331084/2-A	Lab Control Sample Duplicate	S	Solid	DI Leach	
280-84721-2	J1V902	S	Solid	DI Leach	
280-84721-2DU	Duplicate	S	Solid	DI Leach	
280-84721-3	J1V903	S	Solid	DI Leach	
280-84721-4	J1V904	S	Solid	DI Leach	
280-84721-5	J1V905	S	Solid	DI Leach	
280-84721-6	J1V906	S	Solid	DI Leach	
280-84721-7	J1V907	S	Solid	DI Leach	
280-84721-8	J1V908	S	Solid	DI Leach	
280-84721-9	J1V909	S	Solid	DI Leach	
280-84721-10	J1V910	S	Solid	DI Leach	
280-84721-11	J1V911	S	Solid	DI Leach	
280-84721-12	J1V912	S	Solid	DI Leach	
280-84721-13	J1V913	S	Solid	DI Leach	
280-84721-14	J1V914	S	Solid	DI Leach	

Quality Control Results

Client: Washington Closure Hanford

Job Number: 280-84721-1
Sdg Number: JP1047

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-331098					
LCS 280-331084/1-A	Lab Control Sample	S	Solid	9045C	
LCSD 280-331084/2-A	Lab Control Sample Duplicate	S	Solid	9045C	
280-84721-2	J1V902	S	Solid	9045C	
280-84721-2DU	Duplicate	S	Solid	9045C	
280-84721-3	J1V903	S	Solid	9045C	
280-84721-4	J1V904	S	Solid	9045C	
280-84721-5	J1V905	S	Solid	9045C	
280-84721-6	J1V906	S	Solid	9045C	
280-84721-7	J1V907	S	Solid	9045C	
280-84721-8	J1V908	S	Solid	9045C	
280-84721-9	J1V909	S	Solid	9045C	
280-84721-10	J1V910	S	Solid	9045C	
280-84721-11	J1V911	S	Solid	9045C	
280-84721-12	J1V912	S	Solid	9045C	
280-84721-13	J1V913	S	Solid	9045C	
280-84721-14	J1V914	S	Solid	9045C	

Report Basis

S = Soluble

T = Total

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST				RC-148-224	Page 1 of 3
Collector ETHERINGTON, TW	Company Contact Joan Kessner	Telephone No. 375-4688	Project Coordinator KESNER, JH	Price Code <i>SB</i>	Data Turnaround <i>7 DAY</i>
Project Designation 300 Area D4 Waste Sites	Sampling Location 300-288-2 WSA1	SAF No. RC-148	Method of Shipment Commercial Carrier		
Ice Chest No. <i>TNU-052</i>	Field Logbook No. EL-1663-08	COA <i>W 0328872000 2000 6-7-16</i>	Bill of Lading/Air Bill No. <i>SEE OSPC</i>		
Shipped To TestAmerica Denver	Offsite Property No. <i>A131485</i>				
Other Labs Shipped To TestAmerica Richland	Preservation G/P	Cool <=6C ag	Cool <=6C ag	None G/P	Cool <=6C ag
POSSIBLE SAMPLE HAZARDS/REMARKS N/A	Type of Container No. of Container(s)	1	1	1	1
Special Handling and/or Storage Cool as required for preservation	Volume Sample Analysis See item 1 in Special Instructions	250mL PCBs - 8082	125mL TPH-Diesel Range-WTH-D + pH(Soil) - 9045	250mL Semi-VOA - 8270 (TCI); Semi-VOA - 8270 (Add-On Triethyl phosphate)	
Page	Sample No.	Matrix	Sample Date	Sample Time	
1	J1V901	SOIL	<i>6-16-16</i>	<i>0730</i>	
2	J1V902	SOIL	<i>6-16-16</i>	<i>0740</i>	
3	J1V903	SOIL	<i>6-16-16</i>	<i>0815</i>	
4	J1V904	SOIL	<i>6-16-16</i>	<i>0755</i>	
5	J1V905	SOIL	<i>6-16-16</i>	<i>0835</i>	
Page	Sample No.	Matrix	Sample Date	Sample Time	
1	51V901	SOIL	<i>6-16-16</i>	<i>0730</i>	
2	51V902	SOIL	<i>6-16-16</i>	<i>0740</i>	
3	51V903	SOIL	<i>6-16-16</i>	<i>0815</i>	
4	51V904	SOIL	<i>6-16-16</i>	<i>0755</i>	
5	51V905	SOIL	<i>6-16-16</i>	<i>0835</i>	
CHAIN OF POSSESSION					
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1410</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1410</i>	Sign/Print Names	
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1500</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-16-16 1500</i>		
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-20-16 1030</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-20-16 1030</i>		
Relinquished By/Removed From <i>T. Etherington TW</i>	Date/Time <i>6-20-16 1530</i>	Received By/Stored In <i>T. Etherington TW</i>	Date/Time <i>6-20-16 —</i>		
Relinquished By/Removed From <i>D. Schumacher</i>	Date/Time <i>6-20-16 1215</i>	Received By/Stored In <i>D. Schumacher</i>	Date/Time <i>6-20-16 0935</i>		
Relinquished By/Removed From <i>D. Schumacher</i>	Date/Time <i>6-20-16 1215</i>	Received By/Stored In <i>D. Schumacher</i>	Date/Time <i>6-20-16 0935</i>		
Relinquished By/Removed From <i>D. Schumacher</i>	Date/Time <i>6-20-16 1215</i>	Received By/Stored In <i>D. Schumacher</i>	Date/Time <i>6-20-16 0935</i>		
FINAL SAMPLE DISPOSITION WCH-EE-011	Disposal Method	Disposed By Date/Time			
<i>1.610, O.3+D.O TRIPS transferred to DSW 6/20/16</i>					



Washington Closure Hanford

CHAIN OF CUSTODY/SAMPLE ANALYSIS REQUEST

RC-148-224

Page 3 of 3

Collector ETHERINGTON, TW	Company Contact Joan Kessner	Telephone No. 375-4688	Project Coordinator KESSNER, JH	Price Code <i>SB</i>
Project Designation 300 Area D4 Waste Sites	Sampling Location 300-288:2 WSA1		SAF No. RC-148	Data Turnaround <i>7 DAY</i>
Ice Chest No. <i>TNU-052</i>	Field Logbook No. EL-1663-08	COA No. 0328812000	Method of Shipment Commercial Carrier	
Shipped To TestAmerica Denver	Offsite Property No. <i>A131455</i>	Bill of Lading/Air Bill No. <i>S E E O S P C</i>		

Other Labs Shipped To TestAmerica Richland	Preservation G/P	Cool <=6C aG	Cool <=6C aG	None aG
POSSIBLE SAMPLE HAZARDS/REMARKS N/A	Type of Container No. of Container(s)	1	1	1
	Volume	250mL	250mL	250mL
Special Handling and/or Storage Coal as required for preservation	Sample Analysis See item (1) in Special Instructions	PCBs - 8082	TPH-Diesel Range - WTPH-D + pH (Soil) - 9045	Semi-VOA - 8270 (TCL); Semi-VOA - 8270 (Add-On Triethyl phosphate)
Page	Sample No.	Matrix	Sample Date	Sample Time
8	SV911	SOIL	6-16-16	0957
9	SV912	SOIL	6-16-16	0926
10	SV913	SOIL	6-16-16	0849
11	SV914	SOIL	6-16-16	0740
			<i>7/26/16-1646</i>	

CHAIN OF POSSESSION

Relinquished By/Removed From <i>J.T. Etherington 25</i>	Date/Time 6-16-16 1410	Received By/Stored In <i>J.R. Edmundson 6-16-16 1410</i>	Date/Time
Relinquished By/Removed From <i>J.R. Edmundson 6-16-16 1500</i>	Date/Time 6-16-16 1500	Received By/Stored In <i>J.R. Edmundson 6-16-16 1500</i>	Date/Time
Relinquished By/Removed From <i>1060 #1 6-20-16 1030</i>	Date/Time 6-20-16 1030	Received By/Stored In <i>J.R. Edmundson 6-20-16 1030</i>	Date/Time
Relinquished By/Removed From <i>J.R. Edmundson 6-20-16 1500</i>	Date/Time 6-20-16 1500	Received By/Stored In <i>J.R. Edmundson 6-20-16 1500</i>	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
Relinquished By/Removed From	Date/Time	Received By/Stored In	Date/Time
FINAL SAMPLE DISPOSITION	Disposal Method	Disposed By	Date/Time

SPECIAL INSTRUCTIONS

(1) ICP Metals - 6010TR (Client List) {Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Lithium, Magnesium, Manganese, Molybdenum, Nickel, Potassium, Selenium, Silicon, Silver, Sodium, Strontium, Tin, Uranium, Zinc, Zirconium}; Mercury - 7471 - (CV)



Project 28002142

Report Due: 6/28/2016 ② R
TALs TAT: 5-Day RUSH 6-21-16

Sample Check-in List

Date/Time Received: 06/21/16 0935

GM Screen Result 13 microR/hr

Client: Washington Closure Hanford SDG #: SP/057

NA [] SAF #: RC-148 NA []

① b-
6-21-16
280-820721

Job Number: ERC-96-030, TAN-057, ERC-02-404

Chain of Custody # RC-148-224

Shipping Container ID: _____

Air Bill # 7765-6344-8604-8350 D.A. 6-21-16

1. Custody Seals on shipping container intact? NA [] Yes [] No []
2. Custody Seals dated and signed? NA [] Yes [] No []
3. Chain of Custody record present? NA [] Yes [] No []
4. Cooler Temperature °C: 1.6, 1.0, 0.3 NA []
5. Vermiculite/packing materials is NA [] Wet [] Dry []
6. Number of samples in shipping container: 7.7
7. Sample holding times exceeded? NA [] Yes [] No []
8. Samples have:
 - Tape
 - Custody Seals
9. Samples are:
 - In Good Condition
 - Broken

Leaking
Have Air Bubbles
(Only for samples requiring no head space.)
10. Sample pH taken? NA [] pH<2 [] pH>2 [] pH>9 [] Amount HNO₃ Added _____
11. Sample Location, Sample Collector Listed? *
*For documentation only. No corrective action needed. yes
12. Were any anomalies identified in sample receipt? Yes [] No []
13. Description of anomalies (include sample numbers): _____

Sample Custodian: Joshua True Date: 06/21/16

Client Sample ID	Analysis Requested	Condition	Comments/Action

Client Informed on _____ by _____ Person Contacted _____

[] No action necessary; process as is.

Project Manager Darlene Bandy Date 6-21-16

* 90 w/ permission

ORIGIN IDPSCA
1182 SHIPPING
US GOVERNMENT
2335 STEVENS DR
RICHLAND WA 99354
UNITED STATES US

(509) 376-7492

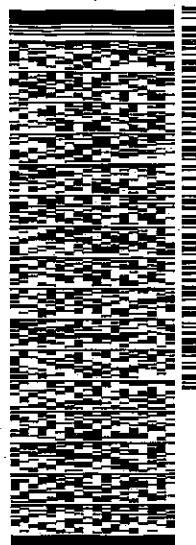
SHIP DATE: 20JUN16
ACTWTG: 73.001LB
GAD: 10266302NET3730
BILL THIRD PARTY

TO KAE YODER
TESTAMERICA
4955 YARROW ST.

ARVADA CO 80002

(303) 736-0190
PO:

REF: 03288W4200
DEPT:



JH61918120591uv 540.2/30BD/727F



1 of 2
TRK# 0201 7765 6344 8604
MASTER ##
XHWHA
80002
CO-US DEN

TUE - 21 JUN 10:30A
PRIORITY OVERNIGHT

After printing this label:

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

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ORIGINID:PSCA
116 SHIPPING
US GOVERNMENT
2355 STEVENS DR
UNITED STATES US

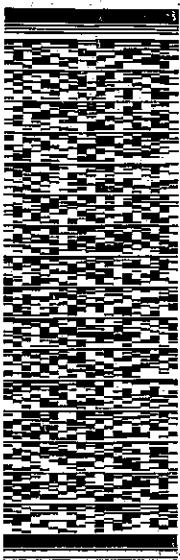
(509) 376-7492

SHIP DATE: 20 JUN 16
ACTWTG: 81.00 LB
CAD: 105.65502NET3700
BILL THIRD PARTY

To KAE YODER
TESTAMERICA
4955 YARROW ST.

ARVADA CO 80002
(303) 736-0190
REF: 03288W200
PO:

DEPT:



J151016020501uv

540J200BD/727F



TUE - 21 JUN 10:30A
2 of 2
PRIORITY OVERNIGHT

MPS# 7765 6344 8350
0263
Mstr# 7765 6344 8604
0201

80002
CO-US
DEN

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1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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